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UNIVERSITY EXAMINERS.

The system of the appointment of examiners which obtains in the Indian Universities has often been the subject of discussion among those who desire to see the University Examinations perfected. The system, as it at present exists, has been hotly assailed, and as vigorously defended. To judge of it in a calm and impartial manner, many points have to be considered. What is the ideal Examining Board? What conditions exist in India which prevent the adoption of this ideal? Is it possible to make the present arrangement conform more to the ideal? These and other questions must repeatedly suggest themselves to the members of the University who are responsible for the constitution of the various Examining Boards.

The University fixes a definite standard for each of its examinations; those who come up to this standard deserve to pass; those who do not fail. But unfortunatley, this standard cannot be considered as irrevocably fixed. It derives a certain amount of elasticity from the fact that those whose duty it is to preserve this standard are repeatedly changing; there is no fixed Board and no

acknowledged authority exercising active control over the Board. In the ideal system, there would be perfect continuity without any possibility of disruption. At Cambridge, for example, most of the Boards of Examinations consist of six members, two of whom retire by rotation each year. Consequently, there is always a majority who must have had experience and must be acquainted with the correct standard, and it is this majority which the Senate lds responsible.

It is often urged as a blot on the Indian University system hat the majority of examiners are also teachers and that the students are examined by their own Professors. In an ideal system, we think it would be quite necessary to have teachers on the Board of Examiners. A man may be an eminent specialist with a world-wide reputation, yet a very poor examiner. It is teaching and the experience a man gains as a teacher that fits him for an examiner. Hence the extra supplication in the Litany to be spared from young examiners uttered so devoutly by generation after generation of undergraduates.

But we insist that, if the Board is to be considered perfect, there ought to be a majority of examiners to whom a high percentage or a low percentage of passes or failures would be wholly immaterial.

Unfortunately, in India circumstances are such that it is impossible in the majority of subjects to obtain men as examiners who are not interested in the results of the examinations. Men who have the knowledge have not the time, or have not the inclination. The work of an examiner must be irksome even to those who are accustomed to it, and where there is no pecuniary necessity, no man will sit down to work which is positively disagreeable. We have often experienced the evil effects of appointing men to examine in subjects they have not taught, and we are convinced that it is necessary to have practical teachers on the Board, if its constitution is to be considered perfect, and if it is really competent to discover the actual capabilities and knowledge possessed by those being examined; but these practical teachers should be the minority, if they have their own students appearing for the examinations. As a matter of fact, in the various Boards of Studies of the Indian Universities, the majority comprising the Board are examining their own pupils.

It remains for us to suggest one or two means by which these Boards may be so constituted that examiners may not of necessity be examining their own students. It is well known that many men are quite capable of examining in more than one subject. The Syndicate might very well ascertain what subject the man is teaching and put him on the Examination Board of some other subject in which he is qualified to examine.

We think that the Universities of India do not sufficiently co-operate with one another in mitigating the evil. The University of Calcutta has from time to time asked the Madras University for examiners in certain special subjects, History and Chemistry for example, and the Madras University has very occasionally given some of its work to men of the other Indian Universities, but there is need of much more reciprocity between the various Indian Universities, if the University examinations are to command genuine respect. Provided that the principle is granted, the interchange of papers would present no difficulty, and we feel sure that both masters and pupils would be benefited. We know that a certain amount of touchiness exists with regard to this question. Examiners think that their honour is being doubted when the subject is touched on however lightly and prudently. But it is better to face it boldly and recognise that human nature is human nature even in an examiner. That the principle of examiners examining their own pupils is wrong, is conceded by the Syndicate. None of the members of the staff of the Engineering College, of the Law College or of the Teachers' College are on the Boards of Engineering or Law or Licentiate in Teaching, although they readily find places on other Examination Boards. In the Government Examinations, there is a *lex non scripta* that no examiner shall examine in the subjects that he teaches, and for this reason, none of the staff of the Agricultural College examine the students of that college. As we before remarked, if the majority of the examiners are not interested in the results, the presence of a minority of teachers is necessary, if the public are to have confidence in the results of the examination. What is wanted to improve the system is, firstly, a better guarantee than at present exists, that the standard of the different papers will not fluctuate, and secondly, that the examiners shall, as far as possible, be chosen from those who have no direct interest in the results. A little consideration on the part of the Syndicate ought to rectify these two faults.

DEPARTMENTAL STORIES.

By "Riverside Dweller."

Autre pays, autres mœurs.

"You will soon discover it's all rot," said Mr. Oldfellow to Mr. Verdant, as the pair walked the deck of the outward-bound Mail Steamer. Mr. Oldfellow was a member of the Revenue Board and had seen over thirty years service in the Gorgeous East; and he was returning to India after his third spell of furlough. His companion was a beardless youth, who had just been admitted into the Indian Civil Service. Mr. Verdant's father was a small Methodist parson and Mr. Verdant junior had been very strictly brought up. His world consisted of his father's congregation plus the small clique of reading men, with whom he had moved at the tutor's. He was coming out to India with very high ideals of life. He meant to treat the native on exactly the same level as the European and would absolutely tolerate no distinctions of any sort. By these and similar means he was determined to impress the subject population with the morality, the uprightness, and the impartiality of the ruling race, and he had just told Mr. Oldfellow of these benign intentions. Hence that gentleman's reply which figures in the opening line of this veracious narrative.

A few weeks after his arrival, Mr. Verdant was posted to the Bogusnugger District and, on reaching that remote region, he at once proceeded to put his theories into practice.

"Are you a married man?" he asked of the Sheristadar, who had come with the customary garland and limes to pay his respects to the new Assistant Collector.

"Yes, your Honour."

"Well, I want very particularly to be introduced to your wife, and I shall soon call on her," said Mr. Verdant in his most agreeable manner.

The Sheristadar was aghast at this suggestion but without moving a muscle, he replied, "as your Honour pleases."

"I shall soon be bringing out a wife myself," added Mr. Verdant and his thoughts flew at a bound to straight-laced Nancy,

whom he had left six thousand miles away. "I want you both to be great friends."

The Sheristadar made no reply but he thought a good deal, and on going out of the august presence, he apostrophised the Assistant Collector as follows :—

"Oh shameless rake! Your innocent looks are but a cloak to the worst passions. Would that you had never set your vile foot in this District."

On the morning following the interview, faithfully described above, the Assistant Collector took a matutinal walk into the town and found himself in the Brahman street. Stopping opposite one of the houses, in the pial of which several semi-nude men were sitting, he accosted them with the greatest politeness.

"Fine morning," he said—the temperature was about 90° in the shade.

"By your Honour's pleasure," came the reply.

"I hope you are all well."

"By your Honour's goodness, we are."

"Is that your child? How many children have you got?"

"Five issues, by your Honour's favour."

These answers were not to Mr. Verdant's taste—they went contrary to his theories. However he would not be beaten so easily and accordingly went on with the conversation.

"Whom have I the pleasure of addressing?"

"I am a clerk on Rs. 20 in your Honour's Office."

"Oh indeed" said Mr. Verdant "I had no idea I was addressing a brother officer. Let me shake hands with you." And he did it. The clerk had just bathed and, being a Hindu, would of course have to go through the operation over again.

"I must be introduced to the ladies of your family," added the Assistant Collector.

"Our females," replied the clerk, "are in the hinder side of the house. It is only we males who, with your Honour's permission, come to the front side."

"Well, never mind now," said Mr. Verdant, "I shall call on them at a more convenient time."

"Our females, your Honour, are all old and ugly," said the clerk depreciatingly, as Mr. Verdant turned to continue his walk,

little conscious of the suspicions he had excited among the occupants of the pial.

* * *

Mr. Buster Ali was the local Inspector of Police and he was a man of the most varied experience and accomplishments. Long service had brightened up his naturally keen intellect and he read Mr. Verdant at sight. " Most European officers treat us as inferiors," remarked Mr. Buster Ali to the Assistant Collector, " they won't admit us to their houses; and as for walking in public with us, they would never dream of it." These remarks were very much to Mr. Verdant's liking, for he was going to rectify all this.

" I suppose the people would like to see all the District Officers behaving like brothers, irrespective of race or creed," enquired Mr. Verdant.

" Yes, certainly," answered Mr. Buster Ali, and he mentally calculated how much the Assistant Collector's friendship would be worth to him. His scale of charges was as high as he could possibly maintain it, but if the people recognised that he had the ear of the Assistant Collector he could charge ten per cent more.

" I mean to change everything," said Mr. Verdant " I shall make no differences." The information was not necessary—for the Inspector had guessed it. " Let us go for a walk."

Accordingly, the two proceeded to promenade the bazaar street, chatting the while in a most friendly manner. The inhabitants stared at the unusual spectacle and that night Mr. Buster Ali's charges were put up five per cent., the innocent aborigines firmly believing that the excess was handed over to the Assistant Collector.

The walks were repeated daily and it was the talk of the whole District that the new Assistant Collector and the Inspector of Police were hand-in-glove with each other. About a week after, Mr. Buster Ali reverting to his favourite topic, remarked " most European officers won't invite us to their table. They can't do it with Hindus for caste reasons but I have no such prejudices." Mr. Verdant caught the bait at once and next day the strange spectacle was seen of the Assistant Collector entertaining the Inspector of Police at dinner. Within twenty-four hours the news was bruited all over the town and Mr. Buster Ali's charges were put up another five per cent.

* * *

It was Sunday morning and Mr. Verdant had just concluded his devotions—he had promised Nancy that he would keep up the good habit. Everything was quiet around him and he began to soliloquise "To-day makes exactly one month since I arrived at Bogusnugger and I can safely say that I can look back with pride to that period. I have made no differences between European and Native. I have treated everyone with the same consideration and I have not done anything, which I would not mind Nancy knowing." He was feeling very happy when the *tapal* arrived. The first letter he opened was a confidential one from the Chief Secretary and it read as follows :—

"Dear Mr. Verdant. You have been in the Bogusnugger District for only a month and my office is inundated with anonymous and pseudonymous letters, charging you with gross immorality, aiding and abetting your subordinates in extorting bribes, in which you shared, and in outraging the prejudices of the natives in a variety of ways. Government will give you another chance by removing you to a distant District and I am directed to warn you against there raising similar scandals to those which Government has just had brought to its notice. If in your new District there is not a distinct improvement in your conduct, it will be incumbent on Government to report the matter to the Secretary of State with a view to your removal from the service.

Yours sincerely,

———————

Chief Secretary."

The mist cleared away from Mr. Verdant's eyes and he was ready to confess that Mr. Oldfellow was right after all and that the saying "Autre pays, autres mœurs" was as true in India as elsewhere and possibly truer.

FAILED B. A.'s OF THE MADRAS UNIVERSITY.

A question of considerable interest to universities all over India has recently been evoking not a little heat in educational circles in Madras. Until a few months ago there existed a bye-law of the Madras Senate, compelling candidates who had failed at the B. A. examination, to attend for another year at a first-grade Arts

College before appearing for re-examination. A Mr. Vaidyanathan, himself a Master of Arts and a Fellow of the Madras University, and a retired local educational officer, proposed at a recent meeting of the Senate that the bye-law in question be rescinded. His arguments were that no such restriction was imposed upon failed candidates at English or Scotch universities, that the practice of these universities was followed at Madras in the case of medical, engineering and certain other candidates, and that there was no reason why it should be followed only in the case of Arts candidates. Moreover, according to Mr. Vaidyanathan, the chief *raison d'être* of the bye-law was to swell the B. A. classes of certain Arts Colleges. The proposition was carried by a majority of two votes, the Fellows of the University who attended the meeting being only a small fraction of the Senate. The adverse minority at the division was composed for the most part of those who were obviously interested in maintaining the strength of the Arts Colleges—to wit the two Members of Council, the Director of Public Instruction and the Principals and Professors of Arts Colleges. On the other hand, the Principals and Professors of mofussil colleges, who are also Fellows of the University, argue that although theoretically they, as members of the Senate, have a voice in the management of educational affairs, in practice they are debarred by distance from attending the meetings of the Senate and were thus prevented from exercising their rights. Whatever may be the ultimate fate of the "failed B.A.," there is much to be said for this view of the case, and it is not improbable that one outcome of the controversy will be a reorganisation of the Senate of the University.—*The Pioneer.*

CRICKET IN MADRAS COLLEGES.

At the prize distribution of the Madras Athletic Association held on the 10th instant, the Presidency College team of cricketers carried off the Pennycuick Cricket Trophy. This is the second time they have been successful in this competition and we offer them our hearty congratulations. Throughout the competitions, the scores showed that the bowling was far superior to the batting; in fact,

except in the final match, the number of runs which came from the bat was absurdly small considering that the wicket was hard and true.

We think that this occasion is suitable for offering a few suggestions which, if taken as seriously as they are given, and acted upon, will tend to reduce the very wide gap that exists between the merits of batting and bowling in College elevens.

Cricket, like all games of skill, requires preliminary teaching, constant practice and an inherent love of the game. No man can possibly become a proficient or even approach first-class form without possessing these. If this were not so, the game would not be worth playing; so easy would it be to become excellent that no credit would be given to him who did excel. Undoubtedly, some men are born with a natural aptitude for the game; from the moment they appear in their school elevens, they are noticed as possessing good form, as being able to field well and to bat well. As a rule, native cricketers have no reason to complain in this respect. They seem to have an inherent gift, much more than Europeans, for fielding and bowling. Their wrists are strong and supple, they have not to carry much weight and generally they possess a true eye, so that it is very common to see them bring off a difficult catch and it is very rare that an easy catch is missed. But unfortunately, it is very seldom indeed that one meets with a good bat among native cricketers, and this from one point of view is the more disappointing, since as we have said before, natives as a rule possess a quick eye and a fair amount of muscle—the two most important qualities necessary in a good batsman. Why is it then, that we so often see a man gifted by nature with those very qualities which should ensure success very rarely approach mediocrity? The fact is that the native cricketer has not had any systematic teaching; he has never had the advantage of a first-class bat to show him how to do strokes which can only be made by practice; the ball that regularly bowls him or that he is sure to hit in the air has not been met with often enough at the nets. His weakness is always his weakness, determination and practice have not overcome it. The great difficulty in India is to get a good teacher. Professionals who are too old for their county-elevens are readily obtained at public schools in England, and immediately a boy shows any promise of being a good cricketer he is taken in hand by an experienced teacher, and by

practice at the nets and by playing frequently in matches, he develops into a first-class player. It was suggested some years ago by the committee of the Madras Physical Training and Field Games Association that a professional be brought out from England to coach the college elevens in Madras during the cold weather. An excellent suggestion, but it was found to be too costly. The Madras Cricket Club have a Parsee professional who knows the game thoroughly and is able to give the members practice at the nets. This we think is the best plan for the colleges of Madras to adopt. A good man from the famous Parsee team might be brought to Madras from Bombay and kept here for six months at a small cost; if all the Native Clubs subscribed, this cost should readily be met. But if he is to be of any use, those natives who really desire to become good must be prepared to devote a definite time every evening to practice at the nets. Spasmodic practice is worse than useless. Most batsmen know the ball that is likely to prove fatal to them; to one it is a well-pitched ball on the off-bail, to another it is a yorker on the leg-stump, and so on. By meeting such balls at the nets sufficiently often, a mastery will be obtained over them and confidence will take the place of funk. Constant practice under the guidance of an experienced coach is what is absolutely necessary if a man is to become a good batsman. Generally, during the cold weather, the Madras Cricket Club play matches at Chepauk, either practice games or matches with other clubs. Whether a man be a good cricketer or not the probability is that if he is playing for the Madras Club, he will have a good style; some of the members are sure to approach perfection, because they have been through the severe training necessary for perfect form at school, and the style once obtained never leaves them. A great deal can be learnt by carefully watching the manner in which these batsmen meet difficult bowling and we advise all native cricketers to follow as much as possible the games played at Chepauk, and note carefully the play of the Europeans and imitate it at the nets as far as possible. Finally, it is to the benefit of the natives to cultivate good relations with Madras cricketers. The effusions that have recently appeared in the local papers have been thoroughly distasteful both to European and native cricketers, so that fortunately no harm has resulted from them. The best practice native elevens can get is the matches they play against Europeans. The closer and more cordial the

relations between native and European cricketers, the more opportunities the former will have for improving their play, not only in batting but in all departments of the game.

As a rule, natives bowl very well; but here also practice is necessary, not so much as in batting perhaps; a few balls should be delivered every day so that mastery may be obtained over the pace pitch and spin of the ball. Native bowlers do not, as a rule, vary their balls sufficiently and it is very rarely one finds a good slow or medium pace bowler in a native eleven. This is merely a matter of practice. It is far better and more paying in the end to bowl a good slow ball than to send down very fast balls with little variety of pace and pitch and perhaps with a strong suspicion of doubtful action on the part of the bowler.

Even after the members comprising the team have attained as near perfection as possible by practice at the nets, there is still the necessity of the team practising together. Practice matches must be repeatedly played, the captain must see that each one is placed in the field in the position he is likely to distinguish himself, and it should be the object of the captain to see that his eleven work like one man.

There are other qualities which good cricketers must possess differing in nature from those we have alluded to. As a rule in a native eleven, if the first few wickets fall for a few runs, a rot sets in, every man comes in expecting to be out immediately, and generally he is not disappointed. Pluck and determination are wanted. The best cricketer is he who is able to stop the rot, and to give confidence to those who are to come after. Again if the side is beaten, such a feeling of depression and want of confidence come over every member comprising it that all practice is stopped, all enthusiasm disappears, the captain resigns and the members disperse. If on the contrary the side is successful, each man is elevated to the seventh heaven and the Madras Cricket Club or the Parsee Team are immediately challenged. Both these extremes are bad. Moderation in victory and bravery in defeat are qualities of the true sportsman.

We believe it is generally agreed among European cricketers that native cricket has improved in recent years, but a great deal remains to be done if it is ever to rise to the European level of excellence. Practice, patience, perseverance and enthusiasm are

necessary. Given that a man possesses these and also a good wrist and a good eye and that he has the good fortune to meet with a good teacher, there is no reason in the world why, if he really devotes himself to cricket, he should not become a first-class player.

PUBLIC INSTRUCTION IN BENGAL.

The report on Public Instruction in the enlightened province of Bengal for 1895-96 occupies 138 folio pages and furnishes interesting reading. The report is prepared by Dr. C. A. Martin, one of the Inspectors of Schools, who was officiating for Sir Alfred Croft during his illness, although the latter was in entire charge of the department throughout the year under review.

In the course of the last ten years, there was, in Bengal, an annual average increase of 1,332 schools and 31,897 pupils. But during the year under review, the increase in the number of schools was 220 less than the average for the decade, but this deficiency was more than made up for, by the very large increase of 35,483 pupils, over the number in the preceding year. The advance in the number of schools occurred under unaided public institutions, and we find that there has been a decrease in the number of Government, Municipal, aided, and private institutions. The decrease in the number of private institutions is evidently due to some of these schools leaving their traditional standards of instruction and adopting the departmental ones, but no explanation is furnished in the proper place in the report for the decrease in the number of aided schools.

Taking the percentage of male and female pupils to the respective population of the school-going age for the Madras Presidency which is given as 24·8 and 4·0 respectively for 1894-95, we observe that while the percentage of male pupils to that of the male population of the school-going age in Bengal is 28·6, the corresponding percentage of male pupils is only one-half of that in the sister Presidency of Madras.

There were during the year under review 39 colleges, of which 11 were supported by Government and 1 by Municipal funds. There was an increase in the percentage of successful candidates in the Entrance, B.L. and M.A. Degree examinations, but a decline

in the F. A. and B. A. examinations—the decline in the latter being from 32 to 23 per cent. We note that secondary education in this enlightened province is not progressing as it should. We learn that secondary schools of all classes taken together increased only by 1 per cent and the pupils attending them by 2·7 per thousand. There was a decrease in the number and strength of the Middle English schools but the Middle Vernacular, Upper Primary and Lower Primary schools, have however increased both in number and in strength.

We are surprised to find "that the teachers employed in 'High English schools' (?) have hitherto been for the most part recruited from among the *alumni* of colleges with no previous training in the theory and practice of teaching." No mention is made in the report of the professional qualifications of the teaching staff of the colleges. We are glad to observe, however, that a step in the right direction has been taken, by the opening of training classes, on an English basis, in connection with five of the training schools. We would urge the establishment, in the near future, of at least one training college in the Presidency, for training men of higher university qualifications for the teaching profession.

It is gratifying to us to note that the number of students receiving special and technical education has been steadily increasing during the last quinquennium. There were during the year 15 Law Colleges, 12 Medical Schools, 5 Engineering Schools and 31 schools of art and industry, besides other special schools. The Sibpur Engineering College has been working very satisfactorily and it gives us great pleasure to find that new classes in Mining and Electrical Engineering have been opened in the institution, that Government has sanctioned Rs. 80,000 for a complete electric installation including the various types of engines, dynamos, cells, etc., for the lighting of the College and for instructing the students in Electrical Engineering and that it has also sanctioned the establishment of a mining laboratory. Six technical schools have already been affiliated to the College and an Agricultural class is soon to be attached to it. The College bids fair to become a technical institute in the near future. The Lieutenant-Governor observes that he looks to this college with confidence "as affording a solution to the problem of European education in Bengal and of providing employment to youths of European extraction."

Many instances of lack of discipline among the pupils in some of the schools and colleges are mentioned in the report and the officiating Director suggests, as a remedy, some kind of moral or religious instruction in schools orally and by means of text-books. We agree with the Lieutenant-Governor in thinking that "it is Utopian to expect that any system of text-books can be devised which would be acceptable to all sections of the community." It is a mistake to suppose that moral lessons are not taught in a school because a text-book written with the direct purpose of teaching morality is not introduced. The real remedy for the state of things so strongly described in the report lies in "the influence and example of the teachers themselves in the first instance, to the extension of hostels under superintendents of high moral character, and to the strict enforcement of discipline."

An interesting table showing the number of hostels attached to the colleges and schools of the Presidency is introduced for the first time into the report. It appears that during the year under review there was a total of 166 boarding houses with 4,757 inmates costing nearly 2 lakhs of Rupees, of which Rs. 76,559 were met from fees and Rs. 107,754 from subscriptions and endowments. 25 of these excellent aids to discipline, are managed by the Government, the net cost to Government, on account of these, besides the amount realised from fees, subscriptions and endowments being Rs. 12,520. We learn that the contributions from the Provincial funds represent "the headmoney which superintendents of boarding houses attached to Government institutions receive as extra remuneration." The Acting Director proposes to popularise these institutions by giving boarding-house building grants to strong schools, utilising the funds set free by the withdrawal of grants-in-aid from inefficient schools.

We are glad to observe that the "Association for the Higher Training of Young Men" which recently adopted the title of "The Calcutta University Institute" and "The Indian Association for the Cultivation of Science" have both been doing excellent work "by lectures and discussions by bringing the students into friendly intercourse with men of character and culture and by the general encouragement afforded to independent study." A large play-ground in the northern quarters of the town of Calcutta was placed

at the disposal of the former society during the year and was formally opened by Sir Charles Elliot.

Financially judged also, the education in the province has been progressing. The total expenditure on education increased by more than 8 lakhs of Rupees over the preceding year, the expenditure from provincial revenue increasing by about 3·7 lakhs. This latter is accounted for, in the report, by the construction of several new buildings and additions and alterations in the old ones. We note that the expenditure on Primary and Female education increased during the year by about 1·6 lakhs and 11,264 Rupees respectively. But we are surprised to observe that the Municipality of Calcutta, the metropolis of the country, spent the paltry sum of Rupees 3,774, on education during the year, while the sister city of Bombay spent nearly as much on inspection alone, Rs. 44,440 in maintaining schools of its own chiefly primary, girls', and special schools, or Rs. 67,103 in all. The officiating Director while remarking that "these figures speak for themselves," offers no explanation for the same. We do not know whether there are a body of private individuals in Calcutta fitted to carry on the education of the city without pecuniary aid from the Municipality. The report is silent on this point, but the Lieutenant-Governor "is not, at present, inclined to recommend any increased allotment, in view of the more pressing need for sanitation."

There are many other matters of interest in the report which we leave to the attentive study of all interested in the education of the Province. We are, of opinion, that some of the minor fluctuations and details might well have been omitted from the report. The paragraphs might have been arranged a little more systematically in some places, and their titles noted throughout the report. A chapter summarising the general progress of education in all directions, would have added very much to the interest of the report. But these apart, the report is a brilliant record of useful work, and does much credit to Sir Alfred Croft whose services to the cause of education in the province have won for him the honorary degree of Doctor of Laws, which was recently conferred on him by the Calcutta University.

THE INDIAN SCHOOL MASTER.*

The Choice of the Profession.

Year after year, a considerable number of the young men of our country pass out of their school or college career, to enter upon that stage of their life when the grand problem of the "*Choice of a Profession*" or rather the "*Problem of Bread and Butter*" meets them face to face. It is not all of them that can afford to approach the solution of this most difficult of all problems, with that calmness, deliberation and freedom without which no '*choice*' worthy of the name can be made. The majority of the youths thus situated having exhausted all the pecuniary resources at their disposal or at the disposal of their supporters, with the weight, sometimes of a large family on their backs to support, are but too eager to pounce upon the first prey that offers itself to them. In these circumstances, they take a few sheets of foolscap paper and busy themselves by writing away 'applications' to all quarters where 'appointments' can be had for 'vacancies' which exist mostly in their own imagination. They interview persons, write to friends, seek influence, and do all they can to gain their object. In this process of bread-seeking, all their buoyancy of youth wears away by contact with the rough world. The rose-coloured optimism of their schoolboy-days soon makes room for a despondent pessimism characteristic of premature old age. It is at this stage of their life that some of them would think within themselves like the famous Hugh Miller of Scotland in a corresponding stage of his life, "*I am one man too many in this world.*" Such is the state of mind in which many an educated youth in this country enters his first bread-winning occupation in his life which he comes across, not by a deliberate choice but by a mere chance. A few there are, who are not oppressed by cares and anxieties and who being in somewhat easy circumstances, proceed to determine their future calling in life with a lighter heart and a freer mind. One thus situated, having a buoyant spirit, arrays before his mind's eye all the comforts, privileges and honors that the world around can give him, and resolves to enter that channel of life which will secure for him most easily those comforts, privileges and honors. The successful lawyer with his coach and pair, the D. P. W. Engineer with his fine pay and extra income to boot, the Doctor who

* A paper read by M. R. Ry. T. K. Hanumanta Rau Avergal, B.A.,L.T., Assistant Professor, Presidency College, Madras, on the occasion of the celebration of the 'Teachers' College Day," on the 23rd December 1896.

can count among his patients, collectors and judges, and the grand government official with his influence and affluence pass in succession across his rosy imagination, each creating in his mind innumerable fancies and ambitions. Entrance into these learned professions of Law, Engineering and Medicine, is possible only after a pretty long course of preparatory training in the respective branches of learning involving a greater or less expenditure of money which must be risked before one can qualify himself for the profession of his choice. No sane man with his head about his shoulders will seriously think of a venture involving a pecuniary risk, without previously thinking of his fitness for it or calculating the chances of his success or failure. Thus it is, that young men who enter these professions are really impelled to pause and consider before they take the final step. Once having entered any one of these professions, they scarcely think of forsaking it for a better one, but on the contrary, try to make the best of the bargain by adapting themselves to the circumstances of their situation with all the industry, perseverance and intelligence that they can command. There appears to be established between these professions and their members a bond of affection or union which it is not very easy to break. *It is this bond of union or affection between an individual and the work that he does that forms the true key to success, whatever may be the pursuit of life in which he is engaged.* There is a real exercise of choice in this case. Success is almost the necessary consequence of such a course. The same remarks hold good in the case of any other occupation, the preparatory training for which involves a previous outlay of labour and money, which latter being a commodity for which all of us have a very serious consideration, and which very few of us will be willing to part with unless for very sound reasons. Patronage again helps some out of the solution of this difficult problem which we are now considering. The influence of some friend or relative in a good position secures for some, advantages which others who have no such friends or relatives go without.

The case is quite different with those occupations of life for which no preparatory training involving any serious expenditure of labour and capital is considered necessary. Under this head comes the occupation of a schoolmaster; under this head also come the various clerkships and low-salaried appointments in the several public offices under government. Even the petty appointments under government have greater attraction for the bread-seeker than the position of a schoolmaster even with a comparatively higher salary; for, even the lowest-paid government official looks forward for a day when he might rise by merit or luck to a position carrying with it high emoluments and great

honor. Further, the steadiness and permanency of government service and the provision for old age made by our government for its servants in the shape of pensions and gratuities, are attractions which are not to be found in schoolmasterships in private schools. Their continuance in service, promotion and prospects depend in many cases upon the whims and caprices of the managers of the schools, individuals, who in most cases are answerable for their actions to no one else but themselves.

I have observed, gentlemen, that there is prevailing a notion that no preparatory training is necessary for a schoolmaster. This notion is as widely prevalent as there are untrained empirics practising the art of teaching. Were I addressing an audience outside the pale of educational work and unacquainted with the difficulties and responsibilities involved in the work of a schoolmaster, I should have thought it fit to endeavour by adducing arguments, to prove that a system of preparatory training is necessary for a schoolmaster. But speaking as I am, to an assembly of persons who have more than anybody else recognised in a practical manner the importance and nay the necessity of training for schoolmasters, I think I can spare myself that task. If there are others about us who think differently, let me answer them by asking "would you entrust your shoes to be mended by a cobbler who has not been trained to his work? And yet would you not entrust the highest faculties of your children to be mended or rather ended by an untrained quack posing himself as a teacher?" If this notion were held only by the ignorant lay-public unconcerned in carrying on the work of education and no others, no serious harm would arise to the cause of education and no one need be anxious about it; but, as matters stand at present, there are adherents to this mischievous view among those who profess to be schoolmasters themselves, the managers of schools, and what is most surprising, among people connected with training schools themselves. This is not as it should be. It is quite possible, gentlemen, that I might take up a portion of your time in describing with some degree of detail, how a few from deplorable ignorance and others from narrow-minded prejudices cry down the system which requires that a schoolmaster should be trained to do his work. But since these notions are fast clearing away and since the importance of training schoolmasters is becoming more and more generally recognised by all those that are interested in the advancement of education, such a digression will neither be profitable nor interesting. It augurs well for the future of education in this Presidency that the University and the Department of Public Instruction have, in a formal manner, recognised the necessity of preparation

and training for one who is to enter the profession of Teaching. Thanks to the memory of the late Mr. Grigg whose ardent endeavours to raise the status of teachers in this Presidency resulted in the institution by our University of the Degree of Licentiate in Teaching of which many of you are proud possessors. Another desirable reform in this direction is that introduced by our Educational Department in requiring that schools and colleges of all grades claiming recognition should have a certain proportion of trained teachers on their staff. A beginning has thus been made. Sooner or later good results are sure to follow.

To return from my digression. I have pointed out how those that are in comparatively easy circumstances make their choice of a profession and how patronage of friends and relations helps others out of this difficult task. Gentlemen, let me for a while turn your attention to a yet larger class of bread-seekers, who penniless and friendless are shut-out from all occupations for the pursuit of which a more or less expensive preparatory training is necessary. Even the pursuit of a trade or industry necessarily requires for its success not only a pretty long course of apprenticeship to the respective trade or industry, but also the possession of qualities and faculties which no school or college can develop. In this connection, allow me to quote from Professor Oscar Browning who says "suppose the teacher has done his best to develop harmoniously all the faculties of the individual, to create a sound body for the sound mind and to take care that all the fibres of the brain are called to play and roused to full activity and that their work is properly distributed among the inherited capacities of the pupil Is such an ideally developed man prepared for the struggle with his environment? Are the qualities that he has acquired just those that the world requires? that moves on its way heedless of individual exceptions. The perfectly educated man might find no place for himself in the economy of things. If we murmur at this the world replies, "The fault is with you, with all your science you cannot educate as I can." Consider the new industries of the past fifty years. What necessities have been created by railways and telegraphs? The skill of an engine-driver or of a pointsman or of a telegraphist requires qualities and knowledge which probably did not exist before the present century. They have been produced by no school, taught by no masters. The belly was their teacher, the necessity of making a livelihood formed them into these moulds. So then we have this antagonism between the individual and the world. The individual requires something for the full satisfaction of his being; the world requires something else and will have it. What are we to do? Are we to give the highest education possible irrespective of practical needs or are

we to give up education altogether and let the world do what it will with its own? Thus no education however perfect will help a man in his struggle with his environment if it has no reference to the practical needs of life." This suggests the inadequacy of a general education for fitting a man to the particular work of his bread-winning occupation. Under these circumstances the class of persons about whom we are now considering, find it absolutely necessary to hit upon some temporary expedient to supply them with the means of living till they can find some more congenial occupation to gratify their ambition or suit their fancies. It is mostly to such persons and for such purposes that the work of teaching in our schools commends itself at the outset. The prevalent idea that no preparatory training is necessary for a schoolmaster and that any man is fit for the work of training the young is very favorable to such persons. The managers of private schools who are most particular about the economic aspect of their concern find that these persons are willing to accept any remuneration that might be offered to them. The only principle that determines the wages of such schoolmasters is that "Something is better than nothing." Couple with this the doctrine of free trade and competition, which is but too freely applied in educational matters and there is but one conclusion that you arrive at. He that is prepared to accept the lowest wages is the best workman. If the free choice of the calling of a schoolmaster by one who has a natural aptitude and inclination for it, involves him in a competition with men thus struggling for life, what wonder then, gentlemen that our noble Profession of Teaching has but poor charms for an average bread-seeker from a pecuniary or rather a mercenary point of view! Who in this busy world is not mercenary? what else but these mercenary considerations can scare away the best of our men from the pursuit of this most noble calling? How smooth will be the progress of the world if only that insatiate love of money did not enter so largely into the composition of man! It might appear that the picture is somewhat overdrawn, but a close observation of what is going on around us will convince you that there is good foundation for all my remarks. Far be it from my purpose to assert that every one who accepts the calling of a schoolmaster under the circumtances described above is an ignoramus or an insincere man. But I do most emphatically assert that there are about us persons who, not out of any regard for the work of a schoolmaster, nay, sometimes with a positive contempt for it, and with an eye to some other occupation enter upon the duties of a schoolmastership with a determination to throw it overboard at the earliest possible opportunity and that these men do more harm to the

cause of education than good to their own. They make this calling a preparation ground for some other. Need I tell you, how many such there are to-day in the city of Madras among those who qualify themselves for the Profession of Law? It is not only the petty assistants in schools that are allowed to carry on this double dealing but sometimes headmasters of large high schools can often be seen walking to their schools with stout law books under their arms. Can any one who has an idea of the arduous nature of the curriculum of legal studies be easily led to believe that a schoolmaster of this kind with two strings to his bow can render any justice to that occupation that supplies every nerve of his body with nourishment? Here again, I am likely to be misunderstood. I do not mean that when a person once becomes by some consideration or other a schoolmaster, he should cling to that work till the hour of his death and that he ought not to have, in this age of liberty, the freedom to change his course at will and thus better his prospects in life; but all that I mean is, that sense of duty and sense of justice require that so long as one professes to be a schoolmaster, a considerable portion of his time and attention ought to be devoted to his work. I only say to such people "One thing at a time and that done well is a very good rule as many can tell."

One main reason why these evils are ignored at the present day is that pointed out by Mr. V. S. Srinivasa Sâstri in the paper read before you last year,—ignorance of the true test of the work of a schoolmaster—the only test now recognised by almost all who judge of a schoolmaster being a false and misleading test—the examination result test. In this direction let me tell you, gentlemen, that there is very serious responsibility resting on the shoulders of every earnest member of the teaching profession *viz*, that of showing to his fellow-men by his earnestness and force of character that a true teacher can do much more to elevate young humanity than produce a required percentage of passes in his school.

Having hitherto considered the circumstances under which the bread-seekers in our country resort to the Profession of Teaching, let us now proceed to examine for a while their career as schoolmasters. What is their status in the society for which they are labouring? What is their position in the economy of the school? What are their difficulties and troubles? A reflection on these and such other particulars concerning them and their work may afford but little interest to a busy man of the world bent upon seeking a "bubble reputation" and a handsome fortune; but it must be of some interest to those who are engaged in the same field of labour. In dealing with this portion of my subject, however, it

would be convenient to classify the schoolmasters in our country under the following heads and consider them separately :—

1. Elementary teachers.
2. Secondary teachers.
3. Professors and Lecturers of Colleges.

I.

Elementary Teachers.

Beginning then with Elementary Teachers let me ask, What does Society expect him to do ? What does Society expect him to be ? Society says to him. "Look here, we entrust to your care our dear dear children with minds pliant like wax. They are on no account to be trifled with ; but see that you develop them into noble youths having healthy bodies, clear and well-informed intellects and sensibilities quickly susceptible to every right feeling and steady wills whose volitions are determined by reason and an enlightened conscience ; teach them Reading, Writing, Arithmetic, History, Geography, Elementary Science and some Hygiene, for look you, they must be able to look after their health ; and more than all this you must teach good manners, for conduct is of infinitely greater importance than correct opinions. Well, this is what we want of you ; when you have done all this at school, see that our children come straight to our houses without going astray on their way." A man who is to bring about such capital results shall on no account be an ignoramus. So our Society resolves that the Elementary Teacher who is to take upon himself the responsibility of educating its children shall possess among other things the following qualifications :— A head as overcrowded with information as is the curriculum of a modern elementary school, generous heart, an excellent moral character, a healthy body, a clean person, a commanding appearance, a cheerful mood and perfectly gentle manner. Such is the service to be rendered by an elementary schoolmaster and such are the qualifications he is expected to possess. Shall we not ask also in this connection, what does Society promise to do for the elementary teacher in return for his services ? Most of you, gentlemen, perhaps know the correct answer to this question. Would it be an exaggeration if I were to say that Society pays greater attention to the well-being of its pick-pockets and cut-throats than for its elementary teachers. To be a convict in a British jail is to my mind far more comfortable than to be an elementary schoolmaster. If I were not myself a schoolmaster, I feel sure that this opinion would receive the amount of regard that is due to it ; but belonging as I do to the profession, the difficulties of which I am describing, they will only be taken at a discount. Be it as it may, it requires very little investigation or depth

of insight to discover what miserably low wages falls to the lot of an Indian Elementary schoolmaster of the persent day. An average able-bodied cooly that is seen hovering about us in the streets of Madras earns on an average six annas per day, (*i.e.,*) eleven and a quartor rupees a month. Do you know what a large number of schoolmasters get pay below that amount? How can a system of remuneration which does not [illegible] the worker and his family even the absolute necessaries of life, be expected to produce any good result? The only and necessary consequence of such a system is that only men of very inferior quality are attracted to do this work. Macaulay in his speech delivered before the House of Commons observed that the Elementary Schools in England were (in his day) being taught by schoolmasters whose only qualification for their work was their utter disqualification for every other kind of work. This state of affairs which existed in England has been more forcibly described in the preface to Charles Dickens' 'Nickolas Nickelby' where referring to Yorkshire schoolmasters it is said "Of the monstrous neglect of education in England, and the disregard of it by the State as a means of forming good or bad citizens and miserable or happy men, this class of schools long afforded a notable example. Although any man who had proved his unfitness for any other occupation in life was free without examination or qualification to open a school anywhere, although preparation for the functions he undertook was required in the surgeon who assisted to bring a boy into the world, or might one day assist perhaps to send him out of it—in the chemist, the attorney, the butcher, the baker, the candlestick-maker—the whole round of crafts and trades the schoolmaster excepted; and although schoolmasters as a race were the blockheads and impostors that might naturally be expected from such a state of things, and to flourish in it, these Yorkshire schoolmasters were the lowest and most rotten round in the whole ladder. Traders in the avarice, indifference or imbecility of parents and the helpless of children; ignorant, sordid, brutal men, to whom few considerate persons would have entrusted the board and lodging of a horse or a dog; they formed the worthy corner-stone of a structure, which for absurdity and a magnificent high-handed *laissez-aller* neglect, has rarely been exceeded in the world. We hear sometimes of an action for damages against the unqualified medical practitioner who has deformed a broken limb in pretending to heal it. But what about the hundreds of thousands of minds that have been deformed for ever by the incapable pettifoggers who have pretended to form them."

This remark applies with equal force to the Indian Elementary teachers of to-day. It might be asked by some one, in this connection,

what was the condition of the teachers of Vedic India three thousand years ago ? Were not these men the repositories of all knowledge, religious and secular ? Were they not properly respected ? Is it not Manu our lawgiver who says "Let a student never grieve that man from whom he has obtained worldly Knowledge—Poetry, Rhetoric, &c., and sacred knowledge—Vedas, Vedangas—or the Knowledge of the Supreme Spirit. Of the natural progenitor and the teacher who imparts the Veda to giver of the Veda is the more venerable father; for it is the new existence which he has acquired by his initiation in the Veda which will last him both in this world and the next. Let him consider as a merely human existence that which he owes to his father and mother uniting from carnal desire and to his being born from his mother's womb; that existence which his teacher who knows all the Vedas effects for him through the prescribed rites of initiation with the Gayatri —the Divine mother, is a true existence; that existence is free from age and death. He who fills his ears with holy truths, who frees him from all pain in this world and the next and confers immortality or final liberation on him, that man let the student consider as his true father and mother and gratefully acknowledging the debt he owes him, never grieve him." "The sanctities, privileges and responsibilities of the originators of life devolve upon the men whose aim is to make that life an honor, a utility and a blessing." And yet was not a teacher so learned and so respected content with earning his bread by begging or by voluntary gifts from the pupils or the public at large ? How comes it that the Indian teacher of to-day is more ambitious ? To these questions, the only answer that I can give is that men's opinions of things have changed as circumstances and conditions of life have changed. Vedic India was governed by rulers and inhabited by a people who deemed begging an honorable calling; but modern India is governed by rulers and inhabited by people who consider begging a crime. The beggar of Vedic India occupied a position which even the historians of to-day look upon with envy. But a modern beggar is looked upon with contempt and ridicule. So, gentlemen, before beggary is offered as the reward or the services of a teacher, I would wish the terms of beggary were made a little more favorable.

Thus, the public whose children our elementary schoolmaster educates is thoroughly indifferent to him and is equally ignorant of the importance of his work. What then is the remedy for this state of affairs ? How then are we to better the condition of our elementary schoolmasters ? The statesman, the philanthropist and the reformer must each in turn render his help to this neglected cause. The State is

no doubt expending every year a large sum of money on elementary education. But necessarily or unnecessarily the machinery of the State which regulates this expenditure is so complex that, before the crumb that is doled out by the beneficence of the State reaches the mouth of hungry schoolmaster, it is reduced to such a small atom that it hardly suffices to serve the purpose for which it is intended by the State. Thus between the primary schoolmaster and the State aid which is to relieve him, there are the inspector, the assistant inspector, the sub-assistant inspector, the inspecting schoolmaster, and last not least the manager of the school (where the teacher himself is not the manager) who must each absorb a very respectable portion of the State contribution towards (elementary) education; such are the conditions of State aid.

Philanthropy has not yet in this country recognised Elementary Education as a channel in which it might flow. Rural schools and rural schoolmasters have never yet received a pie from public philanthropy. How long ago was it that Pachaiyappa and his brethren endowed with princely munificence those schools and colleges which bear his name. Since his time, has not progress been made in all directions? People have become more intelligent. Wealth has accumulated more abundantly in the hands of a few rich men in our midst. Yet, has not the public the right to seek in them for that virtue which used to be placed by our ancestors first in the list of virtues. May we not find that charity in the mansions of our rich men, which when well-directed acts like beneficent showers of rain on a thirsty soil. We in these days hasten to erect marble statues of great value for men who have shone at other people's expense. Where, I ask, is the marble statue for Pachaiyappa? Yet he is the rarest of men in our country. Is he to be the last of his race of philanthropists? God forbid! Let us all unite in praying for the rise in our midst of a host of Pachaiyappas, benefactors of learning and benefactors of the poor.

Then again, there are the reformers; we have the political reformers; we have the social reformers; and we have the religious reformers, each pushing forth for public acceptance some pet scheme or doctrine. But, they have not, I fear, as yet that recognised educational reform has at the foundation of every other kind of reform. Closely connected with educational reform is the question of "the elevation of our elementary teachers."

No doubt all such help must come from without before any satisfactory improvement can be made in our elementary education system and the condition of the elementary teachers. But more important than all this is self-help. For as the old saying goes, Heaven helps them that help themselves. In this connection, permit me to mention the question of

"A Provident Fund for Teachers" on which a paper was read before the Teachers' Guild by Rai Bahadur V. Krishnamachariar. Now that the Teachers' Guild means to approach this question with a view of taking some definite action in the matter we may all unite with that body in helping to bring into existence a Provident Fund which will give to every poor labourer in the field of education, a helping hand in the hour of distress on the principle of benevolence, mutual help and self-help.

II.

Teachers in Secondary Schools.

Let me now turn your attention to the second division of my subject, *viz.*, the secondary teachers. Under this class comes a smaller number of teachers, composed of headmasters and assistants in Lower Secondary and Upper secondary schools and assistant masters in second-grade colleges. They are mostly undergraduates and graduates of our University. Year by year, a larger and larger number of graduates are sent out of our University and correspondingly the number of graduates among this class of teachers is yearly increasing, a change which is indeed very desirable. Because all ages and all countries have recognised that the best teachers are to be found among the most intelligent and the most learned men. In this connection let us ask, are the most intelligent and the most learned of the graduates of our University quite ready to accept the work of teaching in our Secondary Schools? We find that they do not resort to it as readily and as cheerfully as to any other calling in life. The explanation lies in the fact that educated men entering life as schoolmasters have to be content all their lives with almost the same salaries as when they begin life, whereas their fellows even with much less of moral and intellectual worth are considerably much better off. But contentment is a virtue which is so difficult to cultivate in these days. It is said that to be content is to be conscious of one's own weakness. Mr. V. S. Srinivasa Sastriyar, in his paper read before you last year, on Schoolmasters' tests, has omitted to mention another test by which like all others, Schoolmasters are judged, *i.e.*, Rupees', annas' and pies' test. Men's greatness, their influence in socie[illegible] the soundness of their opinions, their cleverness and even th[illegible]dness are all recognised proportionately to the number of ru[illegible]pees, annas and pies, which they can count as their salary. So long [illegible] as this is the case, contentment will be treated as a vice and ambiti[illegible]on will be regarded as a high-class virtue. Let me tell you an am[illegible]using incident in this connection. A District Munsiff, a B.A., an[illegible]d B.L., had once been on a visit to a friend and once classmate of his—[illegible]a B.A., but a Schoolmaster who had a somewhat bright college car[illegible]eer. The District Munsiff, in the

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course of his conversation, observed, apparently with some inward satisfaction, to his friend the Schoolmaster, that although in his college days he compared very poorly with his friend, yet as a District Munsiff he was drawing three times as much salary as his friend the Schoolmaster. The latter whose superior intelligence had failed to be recognised beyond his college career was very much put down by his friend's remark and could not find a ready answer. Just then, a common friend of theirs interceded and asked the District Munsiff what he had to say to a Moplah in Malabar who, though he could not put his pen to paper to sign his name, yet was earning as a Broker and Commission Agent ten times as much money as the District Munsiff. This consoled the Schoolmaster a little bit. It is no doubt a very poor consolation. It must be admitted that intellectual and moral superiority never goes hand in hand with high earnings. Speaking broadly, it might even be asserted that low intellects and elastic moral principles win better prizes in the world than a high culture and scrupulous conscience. It must indeed be very hard for one to be told to do hard work from morning till evening and to reap his reward from reflections like these. But it is always a good principle to take things as they are and make ourselves happy by consolations from whatever source we can.

I am disposed to believe, gentlemen, that there is a slow but steady tendency towards progress in the condition of our Secondary Schoolmasters and their concrete earnings. Time was when the handful of graduates who were sent out from our University as its first fruits, were readily absorbed in Government service by Deputy Collectorships and Sub-Judgeships and other positions that lead up to these and similar places in a comparatively short time. Such high-salaried appointments which hitherto formed the centre of attraction to every graduate of our University can never be indefinitely increased. Any increase in these that might be rendered necessary owing to the increase in the administrative work of our Government can never keep pace with the increase in the number of graduates passing from our Universities. Regarding the work of schoolmasters, it is to be observed that the number of schools and colleges must increase with the demand for education which is increasing day by day. Every primary school is destined one day to become a secondary school, and every secondary school must one day to become a college teaching up to the University. Thus the Schoolmaster is working in an ever-widening field. His hope lies in the future. As he sows so shall he reap. Let him therefore be faithful to his noble cause; let him shew to the world as Dr. Arnold of Rugby did, what wonders can be worked on the minds of the rising

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generation by a strong force of character. Let him shew to the world the enthusiasm and earnestness of a Pestalozzi. His services will sooner or later be recognised as worthy of a greater consideration and a higher reward.

Before leaving this part of my subject, allow me to draw your attention to a very important aspect of the teaching work of these secondary schoolmasters. Most of the subjects for the Matriculation and F. A. examinations of our University are taught by them. Judged by the examination-result-test, there work must be put down as a failure. The failure of candidates in this examination is very large and sometimes reaches so high as 75 per cent. There must be some explanation for this sad failure. This is not an appropriate occasion to discuss that subject. But, however, since a great deal of slur is cast upon the teachers as a class in this connection, I have chosen to make mention of it in this paper. Some of the candidates that fail in these public examinations attribute their failure to their bad star. Others think that the fault lies with the teaching which they received in the particular school or college in which they study and so migrate from school to school, in search of good teaching which will make them pass and after all only make a startling discovery that good teaching is to be had nowhere. The University of course grants the infallibility of the examinations and the examiners who conduct them also arrive at the same conclusion, *viz.*, that failures in the University examinations are caused by bad teaching. I do not deny that there is plenty of bad teaching in our schools, and that failures also result from this cause. But it must be said in justice to those teachers who have honestly and efficiently done their work, that this is not the whole truth. A few years ago, I remember having read in newspapers of a proposal in the Senate that Physics and Chemistry should be removed from the curriculum of studies for Matriculation. I believe the main reason urged in support of this measure was bad teaching in these subjects. The University composed not only of many professors but also of lawyers and judges of the highest eminence has condemned the High School teachers without a hearing from them. If there were in the Senate some fellows who had once at least in their lives taught these subjects in our schools, under the conditions existing in these schools, the state of affairs would have been different. The true causes of these disastrous failures could thus be discovered and the true remedies applied; better results would follow. Therefore it is highly desirable in the interests of secondary education, that there ought to be in the Senate of our University some fellows who could speak on such matters not merely

with the authority due to an exalted station in life, but from actual experience gained by working in these schools. It is said more often than desirable that the University is composed mostly of schoolmasters and that this is the source of all evil. This is not the place to discuss the wisdom or otherwise of such a view. But one thing must be said to those who hold this view, *viz.*, there may be perhaps too many professors of big first-grade colleges in our University, but we certainly do not find too many secondary schoolmasters. These latter are conspicuous by their absence. The professor who is lecturing from the top of his subject can in no sense be said to represent his less fortunate compeer, the secondary schoolmaster. The small salaries that these schoolmasters earn, and their comparative insignificance render it next to impossible that they should be thought of in connection with the fellowships especially through the door of nomination. Now that there is another door of entrance into the University as fellows—*viz.*, the door of election, let us all hope that it will be easier for some of these secondary teachers to get access into the deliberations of our University. The elections of our University ought to differ considerably from the municipal and other elections in at least one important respect, *viz.*, in the Municipal elections, for example, the voters are mostly illiterate, and sometimes even so ignorant of or indifferent towards their responsibilities as citizens that a lift in a brougham or a bottle of iced lemonade is enough to settle which way their votes shall go. But at the University elections, the voters are M.A.'s and B.A.'s of twenty years standing, whose intelligence and worldly experience are a guarantee that their votes will be disposed of to the best advantage of education in our country. There is thus, gentlemen, a chance of our hopes in this direction being realised. Let us now turn to

III.

THE INDIAN PROFESSORS.

Under this head might be included the lecturers and professors in first-grade colleges and the principals of second grade-colleges. There is only a very small number of them in our country. These few are comparatively better off in many respects than the other classes of schoolmasters. They are better paid, and some of them have secured the privilege of taking part in the deliberations of our university. On the whole, there is not much reason to fear that an Indian professor would lag very much behind his European compeer in his work; but on the contrary, the honored names of the late Messrs. T. Gopala Rau, and P. Ranganada Mudaliar of the Presidency College, Madras, and of Mr. Bose of the Calcutta Presidency College are

a guarantee that the Indian professor, if sufficient encouragement be given him, can successfully compete with the wranglers of the British universities, whatever be the department of knowledge in which they may be set to work; not to say anything of those who are working in the subordinate capacities of assistants in first-grade colleges and who though generally paid very low are yet sometimes honored with a share of the work in no way contemptible in quality or quantity, compared with that of their chiefs. But it might be said that these Indian professors are wanting in that power of original thought and original research which are the distinguishing characteristics of the professors of European universities. In this connection, I believe that the Indian professor has for his model his European colleague who comes to this country after drinking deep from the fountain-heads of all learning and after having breathed during the whole of his university career an atmosphere saturated, as it were, with original thought and original research. When the European professors working as model professors in our colleges should have set their example in this direction, that surely will be the time to expect the Indian professors as a class to breathe out original ideas and strike out original paths for themselves. One might enquire, in this connection, why are not the European professors in India acquitting themselves as creditably as those that are working in the European universities. I have heard some superficial observers say, that the best men of the European universities have no charm for Indian service and that only dunces come over to India. I think this represents more the exception than the general rule and that this view is as unworthy of entertainment as an explanation, as the ignorance of the existing conditions of things, of which this view is the outcome. It must be gratefully acknowledged that many of the European educationists who have worked in our country during the last forty years are men of marked abilities who would, if they had not come over to India, have had a brighter career and made a greater name for themselves. Apart from considerations like these, Indian universities and colleges are not to be placed on a par with European universities and colleges as regards the facilities for intellectual progress, which they respectively afford. As Mr. Mukerji says in his book on "Travels in Europe," so far as the material facilities for intellectual culture go, the present of the European countries will be our future perhaps many centuries hence. In this connection, allow me to quote from an interesting article in the *Pioneer* which runs as follows:—"Turning to the professors, we find the sacrifice of depth to area in the curriculum productive of other evils. Confined to the elements of a subject, year by year carrying fresh students

up to a point from which genuine scholarly study might begin, but is never permitted by the university regulations to begin, explaining the same old allusions of the same old authors, dictating analyses of text-books to be committed to memory, dexterously skipping the difficulties, an explanation of which would not pay in the examination, the professor finds his work settle into a mere drudgery; it tends to convert him into a mere schoolmaster. . . . . .Were he on the other hand permitted to deliver advanced courses of lectures, the preparation of his work would add to his knowledge, while his ideas would gain in precision and clearness by the effort of explaining them. Thus his own progress would advance with that of the student. As an illustration of the truth of this, we may point to the fact that many of the best books in Europe owe their origin to a course of lectures; nor are the advantages of such a course confined to the professors. Thoughts springing from an intellect in a condition of active and creative energy, exert a stimulus on the student far more potent than the weary mechanical repetition of common-place ideas. The interest which the teacher feels in his subject imparts itself to the pupil. For the professor, his professional duties and advance in scholarship act and react on one another to the advantage of both. In India, they are divorced from each other, and the result is a lower level of scholarship among the professors of Indian colleges, than would be the case were each able to follow his intellectual bent and carry his pupils with him into the heart of the subject. We speak of course of a general tendency acting in a considerable body of men. There are brilliant exceptions; men who in spite of this and other adverse influences, the large amount of lecturing and examining, the comparatively short vacations, the wear and tear of brainwork in a depressing climate, men who have attained to the highest eminence among European scholars. But the colleges that are so fortunate as to have them, reap little profit from their talents, forced as they are to spend their time in teaching the elements of subjects in which very possibly they have no wish or claim to be specialists. Did an eminent scholar lecture in a subject outside the course, the exigencies of the examination are such that the censures of the authorities and the penalties of failure would fall on him, and the few foolish students who read with him and placed a lore of learning before the duty of cramming for the examinations and raising the percentage of the college passes in the next Director's Report. Thus the learning and the enthusiasm which might sow the seeds of real scholarship in the receptive mind of the young student find no outlet, and the greater part of the best and highest talent at the disposal of the college is wasted? Nay

more, the practical crammer serves the college purposes better than the man of learning and is better prized and sought for more eagerly."

Such are the conditions under which college professors in India are working. That there is no original thinking and original research to be found among them is no reflection on them, but on the conditions surrounding them and the forces by which they are influenced.

There is one thing to be wished for on behalf of the Indian professors, *viz.*, an increase in their number. Most of the first-grade colleges and second-grade colleges are maintained by foreign Christian missionaries, and there is nothing unnatural in their not employing Indian graduates as professors in their colleges to a considerable extent. Next comes the Government. It is only in Government colleges that we are able to find the few of whom we are really proud. It is often said that there ought to be employed a larger number of Indians as professors in Government colleges. True, but so long as we are able to look only to Government for the increased employment of Indians as professors in colleges, very little progress can be made; for, there is always a limit to what the Government can do in such matters. Let us before concluding, consider what is being done in the various indigenous schools and colleges which are slowly and steadily increasing. These institutions mostly in the mofussil towns, are managed by the patriotic and educated section of the Indians. If we reflect a little on the extent to which they are prepared to encourage native talent and employ native professors, the prospect of the Indian professorship is very gloomy. So far as mere talking or writing is an indication of public spirit, there is an abundance of it amongst our people. In addresses to the authorities, in public speeches, and in newspaper articles, our people talk a good deal. Our patriots, while urging on the Government the necessity for employing more Indians in its employ, assert that their sons and grandsons can govern States, can be collectors, judges, members of the Legislative Councils and professors in Government colleges; but when they have a school or college under their own management, when they can afford to pay high salaries to the teachers employed in them, they invariably look f— a European graduate, however inexperienced, in preference t— isk is surely graduate of great experience to receive the highest sala— subjects, but give. Their regard for native talent takes to flight on the and or spine to come back only when a petition has to be drawn up to the — erly and as for this or that privilege. In proof of what I say, only ask sending the selves, how many first and second-grade colleges there are— management of our patriots? How many of these have India— ment tends carrying a salary of Rs 250 and upwards? I must say that — one—to a

genuine patriotism. I will not be far wrong if I assert that government appreciates native talent more than our patriots who speak for it. Honorable be the exceptions !

My task is done. I have striven to show that the condition of schoolmasters of all ranks and grades leaves very much to be desired. The schoolmaster is the most potent factor in the system of school education. Can a smooth black board, a colored abacus and benches with backs, however minutely complying with the requirements of the educational code, be of any avail, if only the teacher be inefficient ? Therefore, if it be conceded that the most essential instrument employed in carrying on the work of education is the living teacher and not the dead objects around him, it follows as a necessery consequence that improvement in the condition of schoolmasters must precede all other reforms in the system of school education. Let us all therefore hope for it, let us strive for it and let us pray for it.

CORPORAL PUNISHMENT.

"CAN WE DO WITHOUT USING THE CANE ?"

By Charles D. Olive.

To the question which stands at the head of this paper I answer, We could do without the cane; but, if we did, we should be discarding without reason an invaluable instrument, the place of which can be adequately supplied in certain cases by no other kind of punishment whatever.

Habitual and indiscriminate use of the cane is now, I imagine, quite a thing of the past. And all of us probably are glad to be spared the constant exercise of sheer physical superiority, which custom sanctioned and enjoined when some of us were boys. But we still keep it in reserve —and let us keep it—for special cases.

In the course of nineteen years as a head-master, I have naturally made some experiments. I began by teaching with the cane always within reach, if not actually in my hand. Then, fearing lest I myself
...me brutalized, I ceased caning almost entirely, sometimes not
... cane for months at a time, and never using one except under
...either at the direct request of a parent that I would punish
...is way, or now and then by the advice of an assistant master,
... and discretion had been well tried.

... always keep a cane in my drawer, and use it, not frequently
...atically, in certain cases. I cane for (1) bullying, (2) lying,
...s so persistent that it threatens to lower the tone of the whole

form, and (4) the throwing of stones or other missiles calculated to do grievous bodily harm.

The objections to the use of the cane are sometimes general, sometimes particular. The main general objections, as they have been from time to time presented to me, are these: First, that it brutalizes a boy and demoralizes him, by destroying his self-respect and breaking or at least weakening his spirit. Secondly, that it involves an appreciable risk of inflicting serious and perhaps permanent injury on the culprit's body. Thirdly, that it tends to brutalize the master who inflicts it. And lastly, "that a man who cannot keep order without the cane has no business to be a schoolmaster."

The particular objections that have been urged upon me are: That bullying is the very last offence for which corporal punishment should be inflicted. "You are treating the bully as he treated the victim. It is revenge, not punishment. You should conquer him by kindness." Again: that "lying is the very last offence for which corporal punishment should be inflicted. Lying generally proceeds from fear, and by caning him you only frighten him into more lies next time to escape the caning." And yet again: that "idleness is the very last offence for which corporal punishment should be inflicted—you only make him hate his lessons and his whole school life."

To the first of the general objections the obvious answer is, that before a boy can earn a caning for either of the first three offences specified, he must be already to some extent demoralized; and as to his spirit, he had better be exorcized as soon as possible if the spirit be an evil one. The objectors urge, that when once a boy has suffered corporal punishment his self-respect is destroyed, or at least impaired, and the reverence which should surround "the human form divine" is gone—for him—for ever. But surely, self-respect is lost by consciousness of guilt rather than by punishment of any kind; and if the punishment arouses some consciousness of guilt that before was dormant, it has only done its proper work. Moreover, a boy who can deliberately bully, wilfully lie or systematically be idle, may have any amount of self-conceit, but very little real respect for himself or others.

Secondly, as to the danger of some bodily injury, the r[illegible] inappreciable. I have never seen any statistics on the [illegible] I should imagine that the risk of inflicting real injury to [illegible] by a caning administered, not of course in passion, but pro[illegible] a caning ought to be administered, is less than the risk of [illegible] same boy for a twenty minutes' railway journey.

The third objection, that the infliction of corporal puni[illegible] to brutalize the master who inflicts it, is, I believe, a vali[illegible]

certain extent; but it strains somewhat the proper use of the word "brutalize," and I hope and believe that the harm we may suffer ourselves is not commensurate with the good that we certainly do.

The fourth indictment, that "a man who cannot keep order without a cane in his hand ought not to be a schoolmaster," is so undoubtedly a truism that it need not be discussed—but it does not bear on the question.

The particular objections claim attention next. And first, I would say that corporal punishment is very rarely, if ever, inflicted for a first offence of any kind. It is conceivably possible that a boy might begin his school career with such a flagrant act of tyranny to a smaller boy as to qualify him at once for corporal punishment, in the eyes of those of us who believe in the efficacy of it for such offences. But I do not think that I have ever known a boy caned for bullying who had not been previously found teasing in an aggravated form, and carefully warned how easily teasing can slip into bullying, and harmless play degenerate into harmful injury.

And so with lying, every misstatement of fact is not to be called a lie and punished as such. Many boys, either from natural slowness or nervousness, labour for a long while under an occasional inability to answer even the simplest question promptly and correctly, while hardly any boy begins his school life with powers of observation sufficiently accurate to give a correct and reliable account of past events, or even of his own actions. When, as sometimes happens, a new boy appears to be telling a lie, I always begin by assuming either that he did not understand the question addressed to him, or that his own statement has been misunderstood. But I make sure, by careful questioning, that he shall understand now—if not before—the nature and consequences of a lie. No boy is caned for idleness until all kindly attempts to interest him in his work have failed, and he is becoming, by reason of his bad example, a stumbling-block to his companions. No boy is caned for throwing stones until he has so offended after it has been elaborately explained to him that, however fascinating and lawful an amusement stone-throwing may be on a deserted seashore, it is dangerous and reprehensible in a crowded play-ground.

To return to the particular objection to the use of the cane as a punishment for bullying. If to chastise a boy for bullying is to be one's self a bully, a similar argument may be urged just as reasonably against every punishment and any form of coercion whatever. The argument seems pushed to its logical conclusion by those who maintain, at educational debates, that "the appeal to authority is an obstacle to moral education." The contention that corporal chastisement inflicted for

bullying is an act of revenge and punishment, might be allowed if the bully were securely fastened, and his victim made to chastise him. But when the chastisement is inflicted by a third and unimpassioned person, the contention seems worthless. My own experience leads me to believe very strongly that there is no punishment which a bully feels and fears so keenly as a caning, no punishment which is so efficacious as a deterrent.

In the course of the last nineteen years, I have, on request, promised the parents of about six boys never to cane one of them without first communicating with the parent, and giving him the option of at once withdrawing the boy. I shall not bind myself by such a promise again. In four out of the six cases, after my promise had been given, the boys developed a decided tendency to be tyrannical towards smaller boys—a more decided tendency than was exhibited by other boys in the school at the time—a tendency which was only kept under by a strong reminder now and then of the conditions attached to the promise which I had made.

The contention that caning is the worst punishment for lying, because lying sometimes, or generally, proceeds from fear, and by caning a boy you may frighten him into lying next time, contains many fallacies at once, and is generally accompanied by the false assumption that the master who canes is, of necessity, a blusterer, and that a caning is invariably preceded by intimidation.

The recent course of events at some other schools of a different kind to our own has led me lately to somewhat modify my adherence to a belief set forth in the earlier part of this paper—that a man who cannot keep order without a cane in his hand, has no business to be a schoolmaster. I have quite lately begun to wonder whether we should all of us find the mere keeping of order such an easy task as we do, if it were not for the pervading consciousness of a cane kept somewhere in the background, and available if necessary—even though no boy in the school may ever have known us use one for such a purpose.

Not long ago I was playing golf, and somehow became more intimate than usual with my caddie—a very friendly little boy, about thirteen or fourteen years, and very talkative. When he had told me his own life's history, and his hopes and plans for the future, he suddenly asked me what my business might be. I told him to guess, and when he had vainly tried—"Hotel proprietor ?" "Public-house keeper ?" and a few more guesses—I revealed that I was a schoolmaster. The boy's countenance fell; the information was evidently a shock to him. Presently, after an awkward pause, he asked, in subdued tones, through which pity

obviously predominated, "Do they shy slates at you?" I told him no; I had never had a slate shied at me, and did not think I ever should. Also I was quite sure that no boy at my school would ever shy more than one. Then, with a contemptuous nod towards the town below us, he rejoined, "They shy slates at the master down there, where I was at school." "Why does he allow it?" I asked. "He can't do anything," was the reply, in scathing accents. "If he touches them they summons him." I felt glad that I was not a board-school master.—*The Preparatory Schools Review.*

UNIVERSITY OF MADRAS.

L. T. DEGREE EXAMINATION, 1897.

PRINCIPLES OF EDUCATION (1).

I. Two very distinct views have been held as to the true end or function of education. State these, and point out how far they are harmonised in modern educational practice.

II. "We never understand an individual thing thoroughly," says Sully, "except in the light of general knowledge." Explain this remark, and state its bearing on the relation of psychology to the work of education. Point out how an ignorance of the laws of psychology vitiated early systems of education.

III. Trace the order of development of the principal so-called intellectual faculties, and state the leading principles or current maxims of intellectual education derived from psychological considerations.

IV. State the primary and secondary laws of Association, and show the importance of these laws to the teacher.

V. Distinguish between Memory and Imagination. "Perhaps we only restrain the imagination," says Madame Necker, "when we exercise it." Explain this, and point out how the right discipline of the imagination is to be conducted

VI. Define Sympathy. State the conditions of its existence, and its uses as an agency in education.

VII. State the physical and physiological bases of the principle of Habit, and describe its ethical and pedagogic importance. In what way can the teachers initiate and develop the formation of habits in children?

PRINCIPLES OF EDUCATION (2).

I. Describe the nature of the intellectual faculties and discuss their relation to the sensations, remembering that the supply to the contents of the mind comes mainly from the senses.

II. What is meant by the *cultivation* of a mental power ? Explain the expressions—"the cultivation of memory," "the cultivation of conception," and "the cultivation of judgment." How is the cultivation to be effected in each of these cases ?

III. Enumerate the circumstances, favourable and unfavourable, to mental concentration. Explain how each favours it or is hostile to it.

IV. The teacher is directed to make the pupils see "the old in the new." Explain and illustrate this, and show its educational importance.

V. Estimate clearly the educational value of instruction in a deductive science. Discuss the relative value of Logic and Mathematics as means of mental training.

VI. What are the tendencies of early years that necessitate a resort to punishment ? Can we entirely dispense with punishment in schools ? Compare the position of the parent with that of the teacher in this respect.

VII. "The conquest of fears is one of the grandest objects of education taken in its widest compass." Write an Essay not exceeding two pages, on this subject.

HISTORY OF EDUCATION (1).

I. (*a*) Explain what is meant when it is said that Bologna was "the model of the Student Universities."

(*b*) Account for the development of the collegiate system in Mediæval Universities.

(*c*) Describe the course of study in Arts at a University in the thirteenth century.

II. State briefly in what ways the following persons occupy an important place in the history of education: (1) Abelard, (2) Colet, (3) John Knox, (4) Melanchthon.

III. Give a short account of Montaigne's views on education, and point out in what respects they were in advance of the educational practice of his times.

IV. Describe the education given by the Jansenists, and estimate its merits and defects.

V. Sketch the system of education prescribed by Rousseau for *Emile*.

VI. What are the chief faults Mr. Herbert Spencer finds in contemporary education, and what are the chief reforms he proposes should be introduced.

VII. Compare the system of elementary education that prevails in the Madras Presidency with that prevailing in England. Point out and account for the chief differences.

VIII. Give a short account of the organisation of the secondary schools of Germany.

HISTORY OF EDUCATION (2).

I. (1) What, according to Plato, is the aim of Education, and how does his conception of it contrast with that held by the majority of the Sophists?

(2) In what did the traditional education of Greece consist? How did Plato regard the *method* of study in vogue in his time?

II. Explain fully Plato's views as to the place of Literature in education. Mention what his reasons are for the view which he finally adopts.

III. (1) It has been said that, with the Athenians, "the aim of musical teaching was ethical." Show how far this statement is supported by Plato's treatment of the subject.

(2) What does Plato consider to be the real function of gymnastics, and how is it related to music?

IV. Describe Plato's ideal system of education under the following heads: (*a*) The subjects of instruction, stating his reasons for adopting them; (*b*) The choice of pupils; (*c*) The order in which the subjects are to be studied.

V. (1) State Plato's views with regard to (*a*) Female Education; (*b*) Technical Education; (*c*) The games of children.

(2) What place in education does he assign to (*a*) Theatrical performances; (*b*) Punishment.

VI. (1) "Good nurture and education implant good constitutions, and these good constitutions having their roots in a good education improve more and more, and this improvement affects the breed in man as in other animals."

(2) "Music and gymnastics must be preserved in their original form, and no innovation made."

Show what Plato means by these statements. Criticise them, and point out in what respects they show his system to be defective.

METHOD AND SCHOOL MANAGEMENT (1).

I. What different kinds of books would you order for the library of a newly-established High School? Mention three or four books belonging to each class.

II. Draw as neat a plan as you can of the compound of a complete Secondary School with 200 pupils, shewing :—

(a) the ground plan of the school with all its class-rooms, doorways and windows ;

(b) the position of the playground, the well, the latrine and other adjuncts.

N.B.—Note the dimensions in the case of (a).

III. Distinguish between furniture and apparatus. Draw up a list of the furniture and the apparatus necessary for the Upper Secondary Department of the school contemplated in the preceding question.

IV. What is the complete staff required for a High School with Upper and Lower Secondary Departments? What qualifications, general and special, should each member of the staff possess? If you were the Head Master of that school, what work would you assign to each master?

V. What are the advantages of a good time-table, and why is it of importance that it should be strictly adhered to?

State what principles would guide you in framing a time-table. Prepare a time-table for a week for the sixth form.

VI. Discuss the advantages and disadvantages of the Monitorial System.

VII. (a) How would you deal with (1) Irregularity, and (2) Unpunctuality on the part of your pupils?

(b) Point out the disciplinary advantages of Drill.

METHOD AND SCHOOL MANAGEMENT (2)

I. (a) Discuss the relative value of lecturing and catechetical teaching.

(*b*) Show how you would employ the method of illustration in the teaching of history.

II. "It is a beauteous evening, calm and free;
The holy time is quiet as a nun
Breathless with adoration; the broad sun
Is sinking down in its tranquillity;
The gentleness of heaven is on the sea.
Listen! the mighty being is awake,
And doth with his eternal motion make
A sound like thunder everlastingly."

(*a*) Show clearly and in detail how you would explain the italicised portions of this passage, and how you would make sure that your explanation was effective.

(*b*) What educational purposes would you make its treatment serve?

(*c*) Describe carefully how you would treat the above passage as a reading lesson, with special reference to expression.

III. State the main uses of essay-writing as a means of education, and show how it may best be taught.

IV. Show how you would teach

(*a*) the fourth proposition of the first book of Euclid,

(*b*) simple proportion.

V. Write teaching notes of a lesson on *Subordinate and Co-ordinate Clauses*, and on *one* of the following subjects, stating the class for which it is meant and the time it is intended to occupy:

(1) The definitions of a point, a straight line, a circle, angles and triangles.

(2) The lever.

(3) A description of a tour in India, taking in the chief places of interest and natural scenery.

VI. How would you deal with the following offences: impertinence, talkativeness, untruthfulness, inattention, habitual want of preparation?

In what ways may the teacher himself unwittingly encourage them?

EDUCATIONAL NOTES.

Some schoolmasters draw incomes almost equal to those of judges or bishops. The head-master at Eton gets about £4,500, a year. The head-master at Harrow gets a salary of £1,500 plus the profits of a boarding house of sixty-four boys at £90; gross, £7,260. The total gross income of the head-master of Charterhouse is about £6,042-10s. A housemaster at Eton has forty boys paying £111 for board and £21 each as pupil, if the master is a classical man and not only a "dame"; gross, £4,440. Assistant-masters at Eton get £300 for the first two years; afterwards the fees bring the amount up to an average of about £800.

* * *

The following is the full text of the speech delivered by Sir Joshua Fitch, LL. D. at the one-hundred-and-fiftieth anniversary of Pestalozzi's death at a meeting held in the rooms of the College of Preceptors.

"I may be permitted to refer, in the fewest words, to the two or three features of Pestalozzi's teaching which have always appeared to me among the most valuable, and which, in my opinion, ought never to be premitted to become outworn or obsolete. The first of these is his insistence on the necessity of training for the senses and for the physical powers as well as for the memory and the understanding. The old doctrine, *Nihil in intellectu quod non prius in sensu*, was with him more than an academic proposition. It was the key to his practical methods. It dominated much of what is called his system. Hence all the simple devices by which he led children to see clearly, to exercise the faculty of observation, to draw, to touch, to handle, to discover, to imitate and to invent. He did not regard the use of printed words and letters as the true beginning of all knowledge, but he relied rather on intuition, the development of faculty, the rousing of curiosity, as the first objects to be achieved in the education of a child. Now here is a principle of perennial importance, one, of which we do not yet see all the practical applications but one which will guide us in coming to right conclusions in respect, for example, to the place which manual training ought to hold as part of a scheme of liberal education, as well as to other yet unsolved problems of our own time. Raumer, one of his affectionate disciples, said of him, "He compelled the scholastic world to revise the whole of their task, to reflect on the nature and destiny of man, and on the proper ways of leading him from his youth towards that destiny." This was in fact the main purpose of Pestalozzi's life. He sought to find for himself and to help others to find, a basis for his plans of education, in a fresher study of nature and experience.

"Oliver Wendell Holmes once said of Emerson that he was an iconoclast without the hammer; that the idols he sought to dethrone he took down from their pedestals so gently and reverently that he seemed more ike one performing an act of worship. In some sense this is true of Pestalozzi. He too was an iconoclast, but he went about his work in a very different spirit from that which animated Rousseau, to whom he was in other respects so nearly akin. Compare Rousseau's "Emile" with Pestalozzi's "Leonard and Gertrude," and you will be conscious of a difference of tone as well as substance. There is in Pestalozzi little or no denunciation, none of the fierce revolt against established notions and usages which characterized Rousseau; only an earnest appeal to parents and teachers—all the more effectual because so restrained and modest—to follow books and traditions less and to study nature and childhood more. You cannot in any survey of Pestalozzi's career overlook the deep religiousness of his nature. To him the teacher's office was a sacred, indeed a priestly function. The moral purpose of a school was its highest purpose. No teacher or writer on education has ever more strongly emphasized the truth that character is more important even than knowledge, that knowledge is only a means to the higher end, not itself an end; and that the first business of a school, as of a home, is not so much to give formal religious lessons as to provide an atmosphere of love and purity and goodness, in which all that is gracious and beautiful in a child's character may have room to grow. "Man," he said, in one of his latest writings, the "swan song," develops the fundamental elements of his moral life—his love and faith—by the exercise of love and faith, just as those of his intellectual life—his thought and reflection—by the exercise of thought; and those of his practical or industrial life—the power of his organs and muscles—by the exercise of this power. Everywhere you find him insisting on the need of spontaneous activity, and on the fact that the learner is not passively to receive and to reproduce the opinions or the emotions of other people, but to be a free and living agent. School could do nothing better than to place him in conditions favourable to the full expansion of whatever is best in his intellectual powers and his moral and spiritual aspirations.

"Perhaps, the most notable feature of Pestalozzi's system was his earnest and constant protest against verbalism and teaching by rote. He was very sensible of the importance of language culture and of the right use of words, but he desired in all cases to make the word or the technical term come *after* some knowledge of the subject or the distinction which the word represented, and not before it or independently of it. In particular, he warred against the use of formularies and catechisms. The

habit of putting printed questions and answers in a book to be committed to memory seemed to him, deadening and mischievous, and indeed, destructive to any real and vital communication between the teacher and the taught. Happily, his opinions on this subject have been generally accepted by all good modern teachers. Except in regard to one subject, catechisms and books of questions have been well-nigh abandoned, and are only now used as the last resort of examiners who do not know how to examine, and of teachers who cannot teach. You know well what that one subject is. There is still a fond belief, on the part of many good people, that the method of learning by heart answers to questions which the teacher reads out of a book—a method which has been discredited in all other departments of instruction—is the best method of teaching religion. Some day, perhaps, we may emancipate ourselves from this curious superstition, and learn how to apply the principles of Pestalozzi not only to arithmetic, and grammar, and history, but to the highest and most sacred of all the subjects we have to teach.

"Meanwhile, one thing remains to be said. There is no finality in the system of Pestalozzi. He was a pioneer only. He saw, with intense clearness, some fundamental truths, but he could not foresee all the practical applications of those truths. His simple life's experience in Germany and Switzerland did not qualify him to understand thoroughly the needs of great and crowded towns, or to take a full view of the larger educational horizon which we have to witness now. Had he known London, or Paris, or Manchester, their new intellectual and industrial conditions would certainly have suggested to him new and fruitful devices for meeting them. It is for us, who have this experience, to adapt what is best in his teaching to the changed circumstances and needs of our own time. We must remember that it is just as possible for Pestalozzianism as for any other system to lose its vitalizing power, to be stiffened into formulas, and to become wooden, pedantic and uninspiring. I have had occasion, during my official life, to know how easy it is to use all the phraseology of Pestalozzi, to imitate his object lessons, and to accept his technique and his theories, and yet to be hopelessly uninfluenced by the spirit of the master, and to fall into unintelligent and unsympathetic routine. The true way to guard against this danger is to perpetuate his spirit as well as his methods, to restate, from time to time, the principles he advocated, to view them with fresh eyes in the light of later experience, and to seek for the best means of applying and illustrating them."

*   *   *

Teachers' Mutual Benefit Associations have sprung up recently in very large numbers in America. These are intended to render help to

such of the members of their own profession as have been incapacitated from working either through advanced age or other causes. These associations are so numerous that the question "of what organization or mutual improvement are you a member?" is often asked of teachers by some school boards.

* * *

Pupils are often told by their teachers that a person can do but one thing at a time. But a good tea[illegible] is the last man to observe it. Such a teacher has to do many things at once and do all well. It is this ability that generally marks the born teacher.

* * *

The mere introduction of the works of art into the school-room not [illegible]y familiarises the pupils with the best in art, but also moulds their onl[illegible]e fo[illegible] the beautiful. And if there be a clever teacher who knows wa[illegible]hen to let the works speak for themselves and when to interpret them truly to his pupils, these works lead to a broader culture, to deeper thinking and to more complete living.

* * *

"His failures made success possible." This is remarkably true of Pestalozzi. Had any one of his numerous educational ventures at the beginning succeeded, the author of "Leonard and Gertrude" would have failed to accomplish what he has done for Elementary Education.

* * *

"He is a wise Principal who secures from his assistants the subordination that comes from appreciative regard rather than from a spirit of servility."

* * *

"Money and opportunities of study can no more [illegible] genius [illegible]plicable than sunshine and moisture can generate living [illegible]; the inexp[illegible]sent, the germ is wanting in both cases. But as, when [illegible]e germ is pr[illegible]umstances plant will grow more or less vigorously [illegible] to the cir[illegible]sistance ma[illegible] in which it is placed, so it may be allo[illegible]ed that pec[illegible] favour development of intellect."—*W. S. Jevons.*

* * *

Gardening for women is engaging attention in Germany, and a horticultural school for girls and women is about to be opened at Berlin. It is proposed to teach all branches of gardening, and to devote special attention to the production of fruit.

* * *

There is no profession, no calling [illegible] demands more of [illegible]re's vital force for its successful prosecution than that of teaching. Although the number of days' teaching per year seems small, and the number of hours

per day limited as compared with the days and hours spent in the other callings, it yet remains true that in no other calling do men and women break down sooner or by fewer years of employment than in that of teaching. The mental strain is great from the nature of the work, bu the physical exhaustion is increased manifold by the nervous tensio occasioned by that feeling of great responsibility amounting almost to fear, that every true teacher has in a large degree. The better the teacher, the more intelligent and enlightened the community, the greater does this feeling of responsibility become and the sooner does the teacher wear out.

* * *

The *Science Siftings* of London gives an illustration of finger brain which enable blind persons to make out things like persons with e s, The brain matter is developed in the blind person's fingers at the yes. from its constant use in touch. tip

* * *

The authorities of the Working Men's College, London, have issued an appeal to the public for subscriptions to provide new buildings for the college and for fitting them up with the necessary apparatus and machinery according to the recent methods. The sum required is estimated at £15,000. The college that was started more than 40 year's ago with some 130 students now consists of more that 1,100 students on its rolls. In the words of the authorities, "the peculiar claim that the college has to urge in comparison with other and newer institutions is that it has special traditions, special principles and special aims which nnot be lightly overlooked or allowed to pass out of remembrance."

* * *

The eight lo[illegible]est words in the English language are philoprogenitiveness, i[illegible] subc[illegible]ncomprehensib[illegible]ss, disproportionableness, transubstantiationalist, and precau[illegible]onstitutionalist, honourifibilitudinity, velocipedestrianistical, dictionaries, [illegible]tionsubst[illegible] The last four are not found in the best leisis," is in s[illegible] but that most hid[illegible]us word, "Dacryocystosyringokatak[illegible]ome of the new lexicons.

* * *

The follo[illegible]wing are the remarks made by Mr. Robert Warington, M.A., F.R.S. S[illegible]ibthorpian Professor of Rural Economy at the University of Oxford, as t[illegible]o the place that should be given to Agricultural Science in a University [illegible] Education.

"In t[illegible]he Universit[illegible] of [illegible] and Cambridge there are, I suppose, about 5,[illegible] undergraduates, of whom a considerable proportion will in after life have the management of land. A proper provision for the

teaching of agriculture in these Universities would, I believe, do far more to improve the condition of agriculture in this country, than is effected by all the Government grants distributed by the Board of Agriculture. . . .

"If agriculture is still merely an art it has no proper place in University teaching . . . but if it is as much a department of science as geology or medicine, it has an undoubted claim to be recognized. . . . Our University (Oxford) has always made this distinction between the art and the science. It does not teach pianoforte playing; but it teaches, and gives a degree in, the science of music. It does not teach the making of pills and plasters or the compounding of draughts; but it teaches, and gives a degree in, the science of medicine. . . . In a University the training of the mind must ever be the primary object."

* * *

Dr. Fitch in one of his lectures said "A poor teacher is made better by training, a bad teacher can be made tolerably useful, and even the best is improved."

* * *

The Teachers' Guild is one of the six educational bodies selected by the English Government in the Registration Bill to send, in the first instance, representatives of the profession to serve on the proposed Educational Council.

INDIAN NEWS.

BENGAL.

H. E. the Viceroy presides at the ensuing Convocation of the Calcutta University.

BOMBAY.

The graduates of the Bombay University have elected Mr. Kaliandass Keshavdass Mody and Mr. Nilkant Chhatre Fellows of the University, and their names will be submitted to Government for confirmation.

* * *

In consequence of the continuance of the plague in Bombay the Judges of the High Court have postponed the Pleaders' and Sub-Judges' examinations to the 21st June 1897. Applications for admission should be sent before the 31st May 1897.

A Meeting of the Senate of the University of Bombay will be held in Sir Cowasji Jehanghier Hall of the University on Monday, the 15th February 1897, for the transaction of the following business:—

I.—To consider the subject of suspending, on account of the Bubonic Plague, the operation of the Bye-law relating to College attendance. The Hon'ble Mr. Justice M. G. Ranade, M.A., LL.B., C.I.E. has given due notice of his intention to propose, as recommended by the Syndicate, "That for Arts and Science Colleges in Bombay or Karachi or any other town that may in the judgment of the Syndicate be affected with the Bubonic Plague, and for the Grant Medical College and the Government Law School in Bombay, the operation of the Bye-law be suspended as regards the number of days' attendance to be required during the first term of 1896-97, and that such attendance be at the discretion of the authorities of the institution to which each student belongs."

II.—To consider the subject of suspending, on account of the Bubonic Plague, the operation of the first part of the Bye-law relating to th Annual Convocation for conferring Degrees. The Hon'ble Mr. Justic A. Strachey has given due notice of his intention to propose, a recommended by the Syndicate, "That the operation of the first par of the Bye-law which requires that a Convocation for conferring Degrees shall be held on the 3rd Tuesday in February, be suspended durig this year."

III.—To consider the subject of suspending on account of the Bubonic Plague, the operation of Regulation 2 of the Regulations relating to the Wilson Philological Lectureship. The Hon'ble Mr. Jusice A. Strachey has given due notice of his intention to propose, as recommended by the Syndicate, "That the operation of Regulation 2 of the Regulations relating to the Wilson Philological Lectureship be suspended during the first term of 1896-97."

IV.—To consider the subject of revising Bye-law 8. Mr. Rastamji Mervanji Patel, M.A., LL.B. has given due notice of his intention to propose, as recommended by the Syndicate, "That in line 1 of Bye-law 8, the words 'by death, resignation or' be *inserted* after the word 'vacated' and that in line 2 of the same Bye-law, the word 'City' be *left out*, and the word 'Presidency' *inserted* in its place."

V.—To consider the subject of revising Bye-law 15. Mr. Rastamji Mervanji Patel, M.A., LL.B., has given due notice of his intention to propose, as recommended by the Syndicate, "That in line 1 of Regulation 15, the words 'by death, resignation, or' be *inserted* after the word 'vacated.'"

VI.—To consider the subject of revising the various cross-references in the University Calendar in conformity with some of the recent changes made in the regulations. Mr. H. I. B. Hargrave, M.A., C.E., has given due notice of his intention to propose, as recommended by the Syndicate, i. "That in line 2 of *N.B.* to Regulation 9, the word 'Languages' be *left out* and the words 'the Second Language' *inserted* in its place, and that in line 3 of the same *N.B.*, the following words be *left out*: "Provided he has kept eight terms at a College or Institution recognised in Arts." ii. "That in line 3 of *N.B.* (2) to Regulation 4 (*a*) in Medicine, the words 'First Examination for the Degree of B.Sc.' be *left out* and the words 'Intermediate Examination for the Degree of B.Sc.' *inserted* in their place; that in line 1 of the *N.B.* to regulation 4 in Civil Engineering, in line 1 of Regulation 37, and in line 1 of Regulation 45, the words 'First B.Sc.' be *left out* and the words 'Intermediate Examination for the Degree of B.Sc.' *inserted* in their place. iii. "That in line 2 of Regulation 37, and in lines 1 and 4 of Regulation 45, the words '2nd B.A.' and '2nd B.Sc.' be *left out*, and the letters 'B.A.' and 'B.Sc.' respectively *inserted* in their place." iv. "That in line 2 of Regulation 37, 'E (2)' be *left out* and '(*d*) i' *inserted* in its place." v. "That in line 2 of Regulation 45, 'E (2)' be *left out* and '(*d*) ii' *inserted* in its place." vi. "That the present *N.B.* to Regulation 27, be *left out* and the following *inserted* in its place: 'Candidates who have passed the Intermediate Examination for the Degree of B.Sc. will be allowed to appear for the First Examination in Civil Engineering after attending for one term only (*viz.*, the second term of the year) at the College recognised in Civil Engineering, and they will be required (at their option) to satisfy the Examiners in subjects I and III only. A similar concession as to terms will be allowed to candidates who have passed the B.A. Examination in group *c* or *d* and those who have passed in group *c* will be required (at their option) to satisfy the Examiners in subjects II and III only. Those who have passed in group *d* in subjects I and III only.'"

VII.—To consider an offer of Rs. 8,896-9-9 from the Honorary Secretaries, Sir Charles Sargent Memorial Fund for creating the nucleus of a University Endowment Fund in the name of Sir Charles Sargent. Mr. Rastamji Mervanji Patel, M.A., L.L.B., has given due notice of his intention to propose, as recommended by the Syndicate, that the offer be accepted with the best thanks of the Senate.

VIII.—To consider an application from Camaji Navroji Cama, for permission to appear at the M.A. and B.A. Examinations of 1897 simultaneously. Mr. J. T. Hathornthwaite, M.A. has given due notice of his

intention to propose, as recommended by the Syndicate, that Mr. Camaji Navroji Gama be allowed to appear at the M.A. and B.A. Examinations of 1897 simultaneously.

IX.—To consider an application from Mr. R. P. Karkaria, B.A., for the recognition of a new College which he proposes to open for the purposes of the Previous and Intermediate Examinations. Mr. J. T. Hathornthwaite, M.A., has given due notice of his intention to propose as recommended by the Syndicate, that the College be recognised in the Faculty of Arts for the purposes of the Previous Examination for the period of three years.

X. To consider the subject of the withdrawal of the Gilchrist Scholarships by the Trustees. Mr. J. T. Hathornthwaite, M.A., has given due notice of his intention to propose, as recommended by the Syndicate, that the Senate express their regret at the proposed withdrawal of the Gilchrist Scholarship from India and the Trustees be requested to reconsider their decision.

* * *

Education in Bombay city is more or less at a standstill owing to the prevailing epidemic. Wilson College has been closed for a further period of one month, till March 1st. St. Xavier's College drags on with greatly diminished classes and Elphinstone College has but 67 students most of whom are scholars.

* * *

Five students of the Elphinstone College we regret to record have succumbed to the plague, though only one a Parsee, Mr. P.D. Bamgi, was actually attending the college classes. Mr. Bamgi resided with his parents in the Fort and not, as has been stated, in the college quarters. The latter are situated in a still healthy part of the town and are completely isolated and exposed to the sea-breeze and are as safe as any place in Bombay can be.

* * *

Mr. P.D. Bamgi was a well-known and popular student of his college. He had successively passed his Previous and Intermediate examinations and he had intended, had be been spared, to take his B.A. examination at the end of this year. Mr. Bamgi's father succumbed to the same fell disease. We deeply sympathise with his widowed mother in the loss of so promising a son.

* * *

Another of the victims was Mr. K.D. Engineer, also a member of the senior B.A. class. Mr. Engineer had not joined the college since the October vacation having suffered from general ill-health. Mr. Engineer was best known as a cricketer. Some years ago he played for the Parsees

against the Presidency. Last year he was a member of the newly-established Bombay University eleven and many of his fellow-students will remember how in the match between that eleven and the Parsee Gymkhana, Mr. Engineer hit the dreaded bowler Billimona for six and then for four, thus making ten runs off the first two balls delivered at his wicket. He was a staunch supporter of the college Gymkhana and its cricket-club and every Elphinstonian will lament his loss.

* * *

Nilkanth Vinayak Chhatre, B.A., L.C.E., who has been chosen by the graduates as one of the two candidates whom they annually submit to H.E. the Governor for nomination as Fellows of the Bombay University, studied at the Deccan College and obtained a second class in the B.A examination in 1876, and then at the Poona College of Science from whence he took a second class in the L.C.E. examination in 1878. The other selected candidate Kalliandas Keshavdas Modi, B.A., took a pass degree in Arts from Elphinstone College in 1887. At the last general election in 1895 for the Bombay Municipality, Mr. K.K. Modi headed the poll as one of the six members returned by the (A.) Fort Ward.

* * *

Our Vice-Chancellor, the Hon'ble Mr. Justice J. Jardine, I.C.S., having abruptly resigned his office both at the High Court and at the University and having sailed for England, the Bombay University is once more left without its presiding officer. Our late Vice-Chancellor spent the greater part of his period of office on leave in England, a state of affairs that we trust would not be permitted at any other University and ought not to be tolerated again in Bombay. In spite of his absenteeism, our late head was an ornament to our University and one whom for learning and scholarship it will be hard to replace.

* * *

Who the next Vice-Chancellor is to be, is already engaging the attention of the public. If a European is to be appointed, owing to Mr. Jardine not having completed his full term of office, the Principal of Elphinstone College is undoubtedly the right man. Principal Hathornthwaite as senior Fellow and Syndic has had to preside at the meetings of the Syndicate and do all the work of no light order which usually falls upon the Vice-Chancellor owing to the absence of the late incumbent of that office. It seems therefore but fair that the man who has had to do the work for so long should now receive the honours due to so exalted a position.

* * *

Quite apart from this consideration we have often pointed out the importance of giving the colleges greater weight in the University, so

that those directly interested in and concerned with higher education may make their voices heard. At present the interests of politics and party are apt to obscure in our local senate what should be purely academic questions.

* * *

If, on the other hand, the Vice-Chancellorship is to be given to a Native, everything points to the Hon'ble Mr. Justice G. M. Ranade, M.A., LL.B., C.I.E., than whom no one takes a greater interest in student life and whose scholarship and learning all who have the privilege of knowing him admire so much.

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At Elphinstone College, Mr. S. F. Mulla, M.A., (Class II. B.A. 1895, Class II. M.A. 1896), Mr. D.D. Kapadia, (Class II. B.A. 1895, Class I B.Sc. 1896) and Mr. P.N. Vakil (Class II. B.A. 1895) have been re-elec ed as Fellows for a second term of one year for 1897, while Mr. D. Dalvi. (Class II. B.A. 1895 and Honorary Fellow and Assistant to th Professor of Sanskrit at Elphinstone College 1896), Mr. B. N. Cama (Class I. B.A. 1896) and Mr. R.P. Masani (Class I.B.A. 1896) have been elected for one year for the first time.

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Mr. R.K. Karana, a student of Elphinstone College, Class II. B.A. 1896 and Cobden Club Medallist in Political Economy has been elected to a fellowship at the Sind College.

* * *

Khan Saheb Syed Shamsuddin Syedmia Kadri, substantive *pro tem* Deputy Educational Inspector, Broach, has been granted privilege leave for one month and fifteen days, from January 11th; Mr Ratanlal Trinbaklal Divetia acts for him; while Ráo Sáheb H. N. Dalal, B.A., Deputy Educational Inspector, Surat, has been granted two months privilege leave from January 20th and Mr. A. T. Dave acts for him. In Sind Ráo Sáheb P. K. Tolani, Deputy Inspector, Shikapur, has been granted privilege leave for two months and six days from January 4th. Mr. G. L Pahilagani acts for him.

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Surgeon-Major R.W. Lyons M.D; I.M.S., has been appointed Professor of Medicine and Clinical Medicine and Therapeutics Grant Medical College in the place of the late Surgeon Major Manser, I.M.S.

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We understand that when Mr. K.M. Chatfield M.A., Director of Public Instruction retires on April 1st, Mr.E. Giles, M.A., now Educational Inspector in Sind will succeed as Director, while Mr. R. D Prior, M.A., Principal of Elphinstone High School will be appointed Inspector in Sind.

MADRAS

The athletic sports of the Madras College of Agriculture will be held on Saturday, the 20th instant, in the College grounds at Saidapet.

* * *

The importance of having trained teachers in Colleges and High Schools has been recognised by the Travancore Government, and it has sent for training to the Teachers' College, Saidapet, this year as many as four graduates. Provision has already been made by Government for the training of secondary teachers by the opening of a Training School at Trivandrum three years ago.

* * *

The Hon'ble Dr. Duncan, Director of Public Instruction, has just returned from a long tour of inspection in the Northern Circars.

* * *

At the recent First-in-Arts Examination,, the results of which have just been published, 29 per cent. of the candidates that appeared for the examination passed. In Madras, the percentage was even less. In the Matriculation Examination, at which the percentage of passes during the last few years has been low, nearly 31 per cent. of the candidates that appeared passed this year.

* * *

The Hon'ble Dr. Miller, C.I.E., has been seriously ill for nearly one month and we are sorry to state that his condition is still dangerous.

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We understand that Mr. J. H. Stone, Principal of the Presidency College, and Mr. A.A. Hall, Principal of the Teachers' College, are shortly to proceed home on long furlough.

* * *

The trustees of the Pachaiyappa's Charities have decided to bring out a European specialist for the Philosophy chair in the Pachaiyappa's College in place of Mr. Cooper Oakley resigned. One Mr. Drew has been chosen by the Rev. Mr. Grose, brother of the Hon'ble Mr. Grose, and he is shortly expected to join duty.

* * *

For the L.T. Degree examination held in January last, 31 candidates appeared from the Teachers' College, Saidapet, and 8 from the Rajahmundry College. The remaining 23 were private candidates.

* * *

The Presidency College Literary Society appears to have done splendid work during 1896, judging from the annual report of the

Society that has just been published. There were 155 ordinary members on the rolls at the end of the year against 85 at the beginning, besides 18 special members. This increase in the strength has made the financial condition of the Society better, and there was a balance of nearly Rs. 450 to the credit of the Society at the end of the year after all expenses had been paid. A series of useful and popular lectures were delivered during the year on different subjects of interest by eminent specialists and they were largely attended by college students and others. A novel feature of the society was its arrangement for the holding of two social gatherings, at each of which, the programme was varied and successfully gone through. The Hon'ble Mr. J. Sturrock, C.S., delivered the annual address on "The attitude of educated Hindus towards the education of Hindu women." H. E. Lord Wenlock, Governor of Madras, presided on the occasion. We fully concur with the committee in its remarks that the successful working of the Society is due to the untiring zeal and willingness with which the President, Mr. J. H. Stone, M. A., guided its working during the year.

* * *

At the second conference of the Godavery District Teachers' Association held at the Rajahmundry Collge hall last month, the following were some of the resolutions passed.

1. That the assignment system of giving grants be abolished.
2. That Inspecting schoolmasters be authorised to grant casual leave up to three days to masters employed in Local Fund Primary Schools, subject to the approval of Presidents of the Local Boards concerned.
3. That the pension rules now in force be substituted by the Provident Fund Rules, as the former are not very favourable to teachers.
4. That the proposal to organise local managing committees in connection with secondary schools be given up, as being unnecessary and injurious to the progress of education.
5. That the system of granting free scholarships be revived in Secondary and Primary Schools.
6. That the Sub-Assistant Inspectors be directed not to hold their grant examinations during authorised vacations and holidays.

* * *

Primary Examination 1895-96.

The report of the Commissioner for Government Examinations on the Primary Examination for 1895-96 is full and interesting in its details The following are some of the points deserving of particular mention. Local members were appointed to help the Chairman wherever the

services of qualified men were available. The number of candidates that appeared for the examination increased by 325, the increase being chiefly in the districts of Tanjore, Malabar and Godavery. The number of pupil and teacher candidates that have secured complete certificates both males and females increased from 11,276 in 1894-95 to 11,746 in 1895-96, while the number under private candidates fell from 922 to ... This is as it should be and is a sure test of the growing import... f the examination. The examination is specially popular among ...rs and grown-up persons, to whom it is an entrance examination ...lmission to Training Schools and for employment in inferior service ...r Government. Taking the results of the examination, we find that ... female candidates (pupil, teacher, and private) have done better ...n the male candidates of the corresponding classes, the percent... for the latter being 48-61-48 against 54-70 and 79, respectively, ...he former. The largest number of candidates that appeared for ...e examination among males was non-brahman caste Hindus, while native Christians predominated among females. It is very satisfactory to find that as many as 447 Panchama candidates appeared for the examination (370 males and 77 females). A new feature of the revised notification approved by Government for the conduct of the examination is that fees have been prescribed for the grant of certificates to those that pass. The income from this source amounted to Rs. 282 during 1895-96. The cost of the examination was Rs. 30,000 nearly, against Rs. 39,000 in 1894-95. The decrease is mainly due to the operation of the revised rules, under which the allowance paid to members of the Board have been considerably reduced. The receipts covered nearly 56 per cent. of the charges.

* * *

A young nobleman named Rajah Inder Karan Bahadur who is the Jaghirdar of Haiderabad has passed the First-in-Arts examination of the Madras University held in December last. His Highness the Nizam congratulated the Rajah on his success.

* * *

We have perused the contents of the first number of the second volume of the Godavery *Journal of Education*, published in Telugu. The journal contains much useful and readable matter relating to education. This is the second of its kind in the Northern Circars, the first being that published by Kota Suriyanarayana at Masulipatan. We wish the journal all success and trust it will be largely patronized and have a wide circulation. The printing and get-up are generally neat.

* * *

The annual athletic sports and prize distribution of the Madras

Athletic Association were held on the 10th instant, at the Madras Cricket Club ground. H. E. Sir Arthur Havelock presided on the occasion and distributed the prizes at the conclusion of the sports.

* * *

Mr. J. Cook, M.A., Principal of the Central College, Bangalore, has been chosen by H. E. Sir Arthur Havelock to deliver the Convocation address this year.

* * *

The Director of Public Instruction, Madras, has recognise[illegible] Government Panchama Branch Training School, Madras, as an ins[illegible] tion for training candidates for the Primary grade, and has placed [illegible] the permanent section of the special schools list.

* * *

The next examination for regulating the appointment and subseq[illegible] promotion of Sub-Assistant Inspectors and Sub-Assistant Inspect[illegible] of Schools will be held on the 26th April 1897 and the two followi[illegible] days.

* * *

The Registrar of the Madras University has notified that applications for the following scholarships and prizes will be received up to the 31st March 1897:—A government scholarship to England; a Johnston of Carnsalloch scholarship; the V. Rama Aiyangar, M.A., scholarship; Sir Tanjore Madhava Rau's Prizes.

* * *

Jaffna will be removed from the list of F.A. centres of the Madras University after the examination of 1897.

[R]EVIEWS OF BOOKS.

MARTANDAVARMAH; A HISTORIC ROMANCE IN MALAYALAM.

Here is a book that boldly betrays the author of the groundless remark that the Indian intellect is not capable of original production. Those who are able to read this novel can realise it. However favourably we may speak of it here, this can, on no account, give the reader a legitimate idea of the book, unless he reads the book himself. For, the summary of a book or any criticism upon it, can never display the true characteristics of the book itself; and it is, perhaps, presumptuous on our part to pass any remarks upon this production within the compass of a small review. We are, however, sure this will serve one purpose: this will make the name of an author whose genius has brought this book

into being, familiar with people other than those who know the Malayalam language. Five years have elapsed since this novel first saw the light and it has suffered in the hands of an ungrateful public an injustice in its not having been made familiar with them long long ere this.

"As a record of past manners and opinions," says Hazlitt, "such writings (novels) afford the best and fullest information;" and the book under review is a true and lively picture of Nair life in South Travancore—its customs and manners in the middle part of the 18th century and the spirit of chivalry of the time. The troubled and stormful lives of the Maharajahs of those days, the loyalty and submissiveness of the poor and middle classes to their rulers, the vanity and arrogance of the aristocracy, the humble but peaceful lives of the sturdy peasantry, are all portrayed to life in the novel. The descriptions of the rural and sylvan scenery around the scene of the story, the delineation of character, the skill with which the plot is developed, nay, the general execution of the whole novel itself are ample proofs of the author's thorough acquaintance with the best novelists of the world and his sterling merits as an observer of nature and human nature. In fact, it is a valuable contribution to a literature which can hardly boast of any other book of the kind. We purpose only to lay before the public an outline of a Historic Romance which may be held out as a pattern of Indian capability.

This novel is the story of a contest for the throne of Travancore between Prince Martandavarmah, the heir-apparent and Sreepadmanabhan Tampi, the reigning sovereign's son *—a Nair of Kshetrya extraction, and the final union of a spotless girl, Parookkutty the heroine, with Ananthapadmanabhan, the chivalrous hero, which issue has been standing in suspense for two years.

The scene of the novel is laid exclusively in South Travancore, chiefly in Trivandrum, the present, and at Padmanabhapuram,† the ancient capital of the Maharajahs.

One day, while Prince Martandavarmah, the future consolidator of the kingdom, sojourns at Padmanabhapuram, Ananthapadmanabhan, a promising youth and the Prince's confidential attendant, takes leave of his master and sets off for Trivandrum, his native place, on account of the illness of his mother. On his way, he encounters a gang of ruffians engaged by Sreepadmanabhan Tampi to intercept him. In the

* According to the law of succession in Malabar, in the royal houses and among the Nairs it is the brother or eldest nephew (sister's son) of the Maharajah or a *Karnavan*, that inherits his kingdom or property, as the case may be; not the eldest son.

† The distance between Trivandrum and Padmanabhapuram is about forty miles.

fray that ensues, the helpless youth is severely wounded and falls all but killed. The ruffians depart and start a rumour that he is killed by his royal master himself. This rumour, groundless as it is, gradually gains currency and inspires the masses with mistrust of their Prince. The cry of the youth for help, calls to this spot an aged Muhammadan physician with his attendants, who are trading in the vicinity. They find him there, senseless and speechless, and bathed in blood. The unhappy youth's graceful and prepossessing appearance excites their sympathy and consequently they take him home, treat him, and nurse him, but make him swear that he will not leave their house or reveal his identity without his aged benefactor's permission. In a few days, his wounds are healed and he gratefully keeps his word and makes himself at home among them, but does not abandon his caste or creed. In their company he becomes a capital athlete and an admirable swordsman.

Two years pass away and the story proper now begins. In the meantime, these Muhammadan merchants, seeking wider patronage, have removed their centre to the town of Trivandrum.

One quiet morning, Prince Martandavarmah is sitting in a pensive and doleful mood in the verandah of an old palace of his at Padmanabhapuram, with none but his servant Parameswaran Pillay by, when he is taken unawares by a band of armed men. Their leader is one Velu Kurup, whose very name is a terror to his enemies. At the first glimpse of his hideous face, the Prince and his servant leap the palace walls and take to their heels, struggling their way through the brushwood around. The enemies give them chase and before they overtake them, a Shānnan, (a palmyra climber) apparently mad, beckons them to a place of shelter and takes up their path to bewilder the pursuers.

After this narrow escape, they seek refuge in the house of a wealthy and stalwart farmer, who is an influential man in the vicinity. Learning this, their enemies surround the house and forthwith a hard struggle ensues between the besiegers and this Mankoikkal Kurup—for that is the name of the farmer—and in the commotion that ensues, the house of Mankoikkal is set on fire. The Prince and his attendant are in; but before they perish in the spreading flames, the very same Shānnan, who saved them before, assisted by many men of his clan saves them once again. Thus, that noble Prince who seems to bear a charmed life passing through many dangers and privations now at last reaches unscathed his palace at Trivandrum, where his beloved uncle, the Maharajah, is lying on his death-bed.

In the interval, Velu Kurup goes and reports to Tampi that the Shānnans are hostile to him, at which news he flies into a passion. Sree-

padmanabhan Tampi is a handsome man whose dignified appearance has made him a favourite with the simple people of the time. His royal parentage has further blinded them to his numerous evils. He is beset with Oriental vices of the vilest kind. He is vain, rude, cruel, aristocratic and debauched. Surrounded by parasites and toadies, he squanders away his time and wealth in sensual pleasures. One Soondara Iyer, a feigned foreign Brahmin—a Maravan by birth—is his chief favourite.

The moment he hears [illegible]'s report, this glutted voluptuary sends fo[illegible], orders to bring all the suspected Shănnans to his presence on the spot and ruthlessly put to the sword. This atrocious order is carried out to the letter and Tampi and his jackals heartily enjoy this sight of agony and death. Among the victims is brought a madman whose words are all madness and so is spared.

A day or two after this, he resolves to marry, and who is his bride? Very near the palace of Trivandrum, there flourishes the renowned Chempakasheril family, whose present *karanavan* is a friend of Tampi and one that goes closely with him in political views. His niece (sister's daughter) is a lovely girl, Parookkutty *alias*, Thangam (literally pure gold), a term of endearment. Well informed in the Puranic lore and well skilled in music,

> "Gentle and true, simple and kind is she
> Noble of mien with gracious speech to all
> And gladsome looks—a pearl of womanhood."

She is now in her transition stage from the girl to the maiden—a stage in life in which women fascinate youth. But she, even from her early days, had placed her affections on one man and everything had gone well with her and him till some two years back when he disappeared and has since been supposed dead or dead to her—missing. She has heard the rumour but she cannot bring herself to believe her lover is dead or in any way undone. In the fulness of her loyalty and constancy, she has convinced herself that the pretensions of Tampi are unjustifiable and he worthy of contempt. To this maiden he proposes a marriage. Parookkutty's uncle and mother desirous of a happy future for the maiden readily close with the proposal. To have any tie with the son of the Maharajah, much more a matrimonial one, they alleged with emphasis, is an honour to the whole family. Soondara Iyer, a man of considerable cant and cunning, has been their go-between in this matter. Through his repeated efforts, even in spite of the bride, a marriage is at last arranged. The proposed wedding day arrives. Tampi with all the pomp worthy of his vanity goes to Chempakasheril one evening. His courting though very short, is marked by many a ludicrous turn and incident

and in the end, the high-souled maiden spurns and ousts him. Thus crestfallen, but with hopes of future success, Tampi returns home.

Meanwhile, many things come to pass among the people and let us see what they are. The reigning sovereign is already at death's door and Tampi, his son, seems mighty busy about his coronation ceremony which he hopes to celebrate in a day or two. The rumours created by the dacoits and circulated by Soondara Iyer and others of Ananthapadmanabhan's murder in the forest at the instigation of Martandavarmah, and Tampi's own prodigality have ruined the reputation and popularity of the heir-apparent. The energies and attention of the chief men in the State, the Ettuveettil Pillays (heads of eight renowned families) and Madampies (another class of influential men) are alike focused to one end—the murder of the Prince. Secret meetings are rife everywhere at the capital, and days pass with good omens for the son of the Maharajah. One meeting held at the house of Kudaman Pillay (the recognised head of the Ettuveettil Pillays) is attended by a large body of men and Soondara Iyer among them as Tampi's deputy. Here, they solemnly agree to stand by Tampi whose competition for the throne they consider fully just. The stale jokes and grim laughter of these brother-sots are very neatly and amusingly described in the novel. One of them, Ramanamadham, is pure fun from beginning to end. The incidents of beau teeting put us in mind of a similar one held at the Old Ellieslaw Castle in Scott's *Black Dwarf*.

Under the very same roof where this conspiracy is in progress, there is a person inly marking the course of events there, whose history deserves a mention here. It is Soobhadra *alias* Chempakam, (literally a sweet-smelling flower) Kudaman Pillay's niece, a matron of rare beauty and intelligence. She seems either privy to, or at the bottom of almost every remarkable incident in the novel. She is, to borrow the author's own figure, the central-wheel which sets the whole machinery of the novel in motion. Her smiling face and smart speech together with a bad name which she has somehow earned draw to her the lewd but repel the moral world; though to speak the truth, she is a woman of character and worth. But her circumstances are such that she cannot or will not show her real self. For, only by such means she can know as she has already known many of, the foul thoughts and plots of the partisans of Tampi, in good time. Henpecked by her, they all mistake her conduct and come to coquet with her. Even Tampi himself her beauty charms and cheats. Soobhadra and Parookkutty are bosom friends, so much so that each cannot bear long separation from the other. They are both firmly attached to the Prince's cause in the political storm

that is silently brewing. One night she even goes to Tampi's mansion and begs of him to come to an honourable understanding with the Prince, though the latter knows it not. It is Soobhadra that encourages Parookkutty in her hope that Ananthapadmanabhan still lives, her friend's lover, and her own step-brother.

The crafty Soondara Iyer one day seeing the hostile attitude of Soobhadra to Tampi, desires to get her out of the way and sends her poisoned cakes through his wife, a very simple Nair woman quite innocent of the foul purpose; but Soobhadra's timely suspicion saves her.

The sad plight of the Prince is now most touching to consider. The Maharajah, his uncle, is no more and in him the heir-apparent loses his mainstay. His life is menaced in the very palace. The people in general he cannot trust. Mankoikkal Kurup, his only faithful ally, is not yet come as he has promised. A few friends, among whom the Muhammadan benefactors of Ananthapadmanabhan, have promised him help; but he cannot be sure of their fealty These things have materially broken his heart. Nevertheless he does not mope or despair. He is also busy with one thing or another. One night he is found, as is his wont, sauntering along the roads of Trivandrum *incog.*, accompanied by his servant Parameswaran Pillay. It is a chill and drizzling night with pitch darkness and pinching blasts, but they care not. Here the good Parameswaran Pillay now implores his master, now chides him to go back to the palace, lest he should be seen and seized by his enemies. But the Prince knows too well that such fears will only lead him to greater straits. There, he slowly watches the movements of the insurgents and everywhere he finds the night dedicated to plots and even his friends to have deserted him. He further learns from his rambles that Mankoikkul Kurup is taken captive at the house of Kudaman Pillay on his way to the palace; but unable to attempt his rescue, the Prince returns to his palace in deep dejection. At this juncture, the old shânnan of our story goes there and tries to release Kurup, but in his attempts he but risks his own freedom. One marked incident in this day's fray is that Velu Kurup, Tampi's arch-emissary is slain. Tampi now bids Chempakasheril Pillay take care of the two prisoners, and consequently he lodges them in a dingy room in his own house and entrusts the key to an old servant of the family. With these preliminary steps, the ruffians fix a time and punctually set out to deal their final and finishing stroke —the murder of the Prince.

Even before they reach the palace, Soobhadra, that shrewd matron, comes to alarm the Prince and gets out with him and his attendants. Stealthily they go along a by-path and reach the main road, when lo! they

fall in with the stately presence of a man on the road which at first fills them with dismay. But who else is it but the sorrowing author of Soobhadra's being and a staunch royalist? He has already appeared in the novel once, in the mansion of Tampi, to advise him and tell him plump and plain not to outrage his conscience and revolt against the Prince, though in vain. He is further a strong and influential man in Trivandrum, but has remained inactive for two years owing to suspicions on the Prince in the matter of his only son's reported death. Now on the same ground, the moment he sees them, he begins to rail at the Prince taxing him with his son's death. But Soobhadra intercedes and at last the good old man is informed that his favourite son is living (as we know) in the Muhammadan camp. Thus the innocence of the Prince is proved and henceforth, the father is as arduous in the royal service as his son.

Thus leaving the Prince in fresh hopes of support and success, let us go to our prisoners in Parookkutty's house. In the absence of her uncle, she advised by Soobhadra, secretly gets the key from the old man with whom she is a favourite and opens the prison room, more with a desire to see its inmates than moved with compassion at their fate. The presence of the younger prisoner, that mad Shânnan attracts her attention first. In him she finds a worn-out grace and faded dignity. The sight, however, awakens in her an emotion—a deep and thrilling emotion indeed, and overcome by it she faints when he with open arms readily helps her to her mother's arms, casts a rueful look at the girl and instantly flies the house. This man is her lover. For a single glance at him, her heart has been perpetually hungering for two dead and desolate years. In the elysium of such a delicious sight, fain would he give her a kiss and soothe her sorrows,—but his oath! Straightway he goes to the Muhammadan camp, whence with his aged benefactor's sanction he has been away (as we know) to help his ever-revered royal master. He and the Muhammadans now join the Prince while Mankoikkal Kurup also gathering his scattered men appears there in time. Thus, at last, everything converges to the Prince's advantage.

Now, a word about Soobhadra's end here. She at last finds her husband—her husband no more—in the Muhammadan camp. Doubting her purity, he had put her away some years back and had, without her knowledge, taken the turban. But he repents as he now becomes alive to the chastity of his spouse, but this only adds to her sorrow; for, what is the good of a husband who has become a convert to a Nair woman? Nor is this all. To crown all her misery, her villainous uncle now finds out her treachery to him and he, in a fit of anger, draws his

sword and strikes her. Such is her end. Poor woman! She has not lived to see the good result of her labours. This lady, did she live long enough, for her strong moral courage, purity and other womanly virtues, and above all for the great services rendered to the Prince, would have well deserved the consortship of that personage.

But the story continues and ends as a comedy or rather tragi-comedy. The enraged mob of assassins not finding the Prince in his palace break out in search of him; but all their hopes are blighted when they meet unexpectedly, a troop of men risen in arms against them. A hard fight ensues between the two parties in which the Prince wins the day. The lowborn Soondara Iyer and a few others of the enemies are slain on the spot and the rest taken. Before Tampi is historically killed, the novel closes with the happy union of Parookkutty with Ananthapadmanabhan.

This is the summary of a novel covering more than four hundred pages of small quarto. There is a large number of interesting incidents omitted for the sake of brevity. In the summary given above, all the parts played by the hero are not given. For instance, his having been shut up in the Charot palace by Tampi, his sly entrance into Parookkutty's chamber the night of Tampi's entrance there and his duel with Soondara Iyer on the latter's way back from the conspiratory meeting.

The introduction of them would have made the summary longer though of course with a proportionate increase of interest. Next to the plot, its special beauty consists in dialogues and descriptions. The novel opens abruptly with an awe-inspiring scene in the heart of a forest where a handsome youth is found dipped in blood. The description of this circumstance giving a clear idea of the forest in a moon-light night is terribly sublime. There are also many other passages in which such eloquent touches of description are visible. The dialogues are couched in language well suited to each speaker. That between Parookkutty and the old servant of the family, a good-natured man who has "declined into the vale of years" and full of old-world virtues and principles, that between Soobhadra and Anandam, (Soondara Iyer's wife) and those between the various conspirators in their places of rendezvous, are scrupulously appropriate and true to nature.

Nevertheless, according to the strict canons of modern fiction, the book may have its defects; but the only charge seriously levelled against is is that its diction is somewhat involved and it savours of Southern mannerisms. The style is a little learned, but not involved. True, mannerisms are found in the mouths of characters which rather adorn than spoil the beauty of the book, but not where the author narrates

the story in his own words. On the whole, the book is a valuable contribution to the Malayalam literature and the University will do well to prescribe it as a text-book for any one of its higher examinations. We conclude by hoping that as long as the Malayalam language lasts there will also last this novel and the name and fame of its gifted author Mr. C. V. Raman Pillay, B. A.

ADNIVOG YALLIP.

CATECHISM OF TAMIL PROSODY. By C. Govindasami Reddiar, Schoolmaster, Shiyali.

A small book on Tamil Prosody suitable for beginners should be of great use to candidates preparing for the University Examinations. No doubt a few pages are generally given in the Notes to Tamil text-books on Prosody, but a complete elementary book supplies a want. The author of this little book, in following the larger and ancient works on the subject, has taken considerable pains in putting in a clear and well-arranged form the important rules of Tamil Prosody with choice examples selected from ancient authors for the various kinds of metre. We consider the book a suitable one for beginners and wish for it a wide use by the candidates for the University Examinations.

PHILIPS' UNIVERSITY ATLAS OF ANCIENT HISTORY. London: *Philip & Son.*

This atlas is intended to meet the requirements of candidates preparing for the F. A. Examination of the University of Madras. It contains eight maps in all, a map for each of 'The world as known to the Ancients', 'The Roman Empire' and 'Asia Minor', two maps for Italy and three for Greece and the adjacent Islands. The maps are neat, clear and well prepared and we have no doubt that this Atlas will be very welcome to the F. A. candidates, who generally read Schmitz History for their text-book of Ancient History.

ARITHMETIC FOR PROMOTION: Scheme B. By Rev. J. B. Loch, M.A. and R. F. Macdonald. London: *Macmillan & Co.*

This consists of seven separate parts, one for each standard, and is adapted to the requirements of the English Code. Each part is divided into a number of Exercises and each Exercise begins with a brief and clear exposition, wherever needed, of the Subject of the Exercise followed by Model Examples; then come the Oral Exercises which are followed by sums for written work arranged under three heads A, B and C, the groups B and C being intended for "the widening and deepening of the work" provided for those under A. The arrangement and the careful graduation of the Exercises, the abundant provision for constant

revision of previous rules, and the copious number of Oral Exercises should make these books very valuable to all sorts of pupils.

FAIRY TALE PLAYS. *Longmans, Green & Co.* 6s.

Mrs. Hugh Bell has conferred a great boon on the boys and girls of English schools in her happy adaptation for the stage in simple language those tales most dear to childhood, among which are *Ali Baba, Red Riding Hood, Cinderella, Jack and the Bean-stalk, The Sleeping Beauty,* and *Bluebeard.* The clear, interesting and exhaustive directions given in connection with the stage, dancing, scenery, rehearsals, articulation, general deportment, music, and the "make-up," will be found of the greatest use to those taking first lessons in the histrionic art. The costumes of the *dramatis personæ* are given with each play, as also copious illustrations shewing the place of the actors, &c., with each shifting scene.

The plays are interspersed with songs set to music with such popular tunes as 'The Campbells are Coming,' 'So Early in the Morning,' 'The Young Recruit,' 'The British Grenadiers.' The home-sick Fatima is made to sing that heart-stirring song which at all times finds a responsive chord in all hearts 'Home, sweet Home.' The volume is handsomely got up and is well worth the price. We commend the early introduction of this book in every girls' school library. Just before the breaking-up for a vacation, one of these popular Fairly Tales might be acted.

CUTTING-OUT ON SECTIONAL PAPER. *Longmans, Green & Co.*, 1s.–9d.

The three diagrams before us contain all that is wanted for a single and a double-breasted coat. The patterns are in good stout paper with detailed instructions in the margins. The size given is for a medium figure. In other cases directions will be found as to how the difficulty is to be met. Elaborate draperies and trimmings must be left entirely to the good taste and skilful manipulation of the milliner. Mrs. Grenfell's system by measurement is intended for class and self-teaching. It is very clear, scientific, and a great improvement on the old method. In schools where the number of pupils is fairly large, lessons might with advantage be given on the chequered board. The measurements can be easily and accurately taken by any one who has a desire to learn dress-making. Indian *Durzies* generally produce a very fair copy of a well-made English or French dress; defects however are noticed when it is worn. These sheets would help to correct such mistakes in cut and fit

GOKHALE'S ARITHMETIC FOR HIGH SCHOOLS. *Macmillan & Co.* Rs. 1-8.

Everything in the way of explanation is lucidly and intelligently put. Much interesting and useful information hardly met with in the generality of text-books on Arithmetic is also given. The graduated examples at the end of each chapter are copious and well-selected. A chapter on Elementary Mensuration is added. The popularity of this work is such that it has reached a fourth edition. The exceedingly low price puts it within the reach of all pupils to whom we unhesitatingly recommend it. It is largely used in the Western Presidency. We believe that its introduction into schools in this Presidency will be of great benefit.

MILTON'S COMUS, WITH ANNOTATIONS. By S. C. Banerji, M.A.,

In the exhaustive introduction, all that the student needs in the characters, criticism, versification, and history of the poem is to be found in this volume. The notes, which display an intelligent grasp of the text, are comparatively few and all that the average intelligence needs. The many parallel quotations from various authors bear testimony to the extensive reading of and care taken by the annotator. The glossary will be found of great use.

MATHEMATICS.

Solutions of Questions.

133. (*V. Ramaswami Aiyar, M.A.*) Demonstrate the following identity due to M *Hermite* (quoted in *Hobson's* Trigonometry) :—

If $\alpha, \beta, \gamma, \delta \ldots\ldots \lambda$ be any n angles, then

$$\cot(x-\alpha)\cot(x-\beta)\ldots\cot(x-\lambda) \equiv \cos\frac{n\pi}{2} + \Sigma\, A\cot(x-\alpha),$$

where $A = \cot(\alpha-\beta)\,.\,\cot(\alpha-\gamma)\ldots\ldots\cot(\alpha-\lambda)$.

Solution by C. S. Mahadeva Aiyar, B.A.

Using the symbols in Question 131,

$$(1+at)(1+bt)\ldots\ldots(1+lt)\,/\,T$$

$$=\frac{1}{T}+\frac{t}{T}\Sigma a+\frac{t^2}{T}\Sigma ab+\ldots\ldots+\frac{t^n}{T}abc\ldots l$$

(splitting into partial fractions and collecting numerators of $\dfrac{1}{A(t-a)}$ etc.)

$$=\Sigma\{(1+a\Sigma a+a^2\Sigma ab+\ldots\ldots+a^{n-1}\Sigma ab\ldots k$$
$$+\,ta^{n-1}ab\ldots\ldots l)\,/\,A\,(t-a)$$

$$=\Sigma\{(1+a^2)(1+ab)\ldots\ldots\ldots(1+al) + a^{n-1}(t-a)\,abc\ldots\ldots l\}\,/\,A\,(t-a)$$

$$=\Sigma\{(1+at)(1+ab)\ldots\ldots(1+al)+(t-a)\,P\}\,/\,A\,(t-a)$$

where P is a constant independent of t.

Substituting $\tan x$, $\tan \alpha$, $\tan \beta$ .... for $t, a, b, \ldots$

$$\cot(x-\alpha)\cot(x-\beta)\ldots\ldots\cot(x-\lambda) = \Sigma\cot(x-\alpha).\,A + C,$$

where C is a constant which, on putting x equal to zero, is found to be $\cos\frac{n\pi}{2}$, by the lemma to Question 92.

Note on Questions 92, 131 *and* 132,

by the Proposer V. Ramasawmi Aiyar, M.A.

If in Question 131 we write $x=e^{2\theta}$, $a=e^{2i\alpha}$, $b=e^{2i\beta}$, ... $l=e^{2i\lambda}$, we get the following trigonometrical result :—

If $\alpha, \beta, \ldots \lambda$ be, any n angles,

$$\Sigma\left\{\frac{\sin(\alpha-\beta+\theta)\,.\,\sin(\alpha-\gamma+\theta)\ldots\sin(\alpha-\lambda+\theta)}{\sin(\alpha-\beta)\,.\,\sin(\alpha-\lambda)\ldots\sin(\alpha-\lambda)}\right\}=\frac{\sin n\theta}{\sin\theta} \quad \ldots (1)$$

In this result, putting $\theta=\frac{\pi}{2}$, we have

$$\Sigma\left\{\cot(\alpha-\beta)\,.\,\cot(\alpha-\gamma)\ldots\cot(\alpha-\lambda)\right\}=\sin\frac{n\pi}{2} \quad \ldots (2)$$

From result (2), taking an additional angle x we may easily get

$$\cot(x-\alpha)\cot(x-\beta)\ldots\cot(x-\lambda)\equiv\cos\frac{n\pi}{2}+\Sigma A\cot(x-\alpha);$$

where $A=\cot(a-\beta)\cot(\alpha-\gamma)\ldots\ldots\cot(\alpha-\lambda)$. ... (3)

(*Hobson's Trigonometry; also proposed for solution in Question* 133.)

Again in result (2) put $\alpha=n\theta$; $\beta=(n-1)\theta$; $\gamma=(n-2)\theta$; ...; $\lambda=\theta$; we see that, if $A_r=\cot\theta\,.\,\cot 2\theta\,.\,\cot 3\theta\ldots\cot r\theta$,

$$A_{n-1}-A_1A_{n-2}+A_2A_{n-3}-\ldots\ldots=\sin\frac{n\pi}{2},$$

$$\text{and } A_n-A_1A_{n-1}+A_2\,.\,A_{n-2}-\ldots\ldots=\cos\frac{n\pi}{2} \quad \ldots (4)$$

From result (4) we may see that if the two series

$f(x)\equiv 1+A_1x+A_2x^2+A_3x^3+\ldots\ldots$

and $f(-x)\equiv 1-A_1x+A_2x^2-A_3x^3+\ldots\ldots$

be multiplied together, the resulting series will be

$1-x^2+x^4-x^6+\ldots\ldots\equiv(1+x^2)^{-1}$

This is a solution of Question 92 of the Journal.

140. Equal masses m, m are attached to the ends A, B of a light inelastic string which passes over a light smooth pulley. The system

being at rest, a mass μ is gently placed on the mass m at A, and after t seconds the mass m at B begins to raise a mass $n\mu$ $(n>1)$ which is lying on a table vertically below B and is connected with the mass m by a light inelastic string. Determine the subsequent moton of the system and prove that, after a further interval of $2t/(n-1)$ seconds, the mass $n\mu$ will be on the table. If the impulse caused by the tightening of the string were just sufficient to break the string AB, what would be the subsequent motion of each of the masses?

Solution by A. Radhakrishna Aiyar, B.A.

The acceleration of the masses at the beginning of the motion is $\mu g/(2m+\mu)$; the velocity after t seconds is therefore $\mu g.t/(2m+\mu)$.

As the momentum of the system must remain unchanged the velocity after the impulse is $\dfrac{\mu.gt}{2m+\mu}\cdot\dfrac{(2m+\mu)}{2m+(n+1)\mu}=\dfrac{\mu.gt}{2m+(n+1)\mu}$.

The retardation afterwards is $\dfrac{(n-1)\mu.g}{2m+(n+1)\mu}$.

For the velocity to be destroyed, it will take

$$\frac{\mu.t.g}{2m+(n+1)\mu}\cdot\frac{2m+(n+1)\mu}{(n-1)\mu g}=\frac{t}{n-1}\text{ seconds.}$$

For the mass $n\mu$ to return to the table, it will take twice this time $=2t/(n-1)$ seconds.

If the string breaks the mass at A will move with the velocity $\dfrac{\mu.gt}{2m+(n+1)\mu}$ downwards and with an acceleration g also downwards.

The mass at B will move with the same velocity but upwards and the acceleration g downwards, so that after $\dfrac{\mu t}{2m+(n+1)\mu}$ seconds (for which time it will be moving upwards), it will descend like an ordinary falling body.

156. (*K. J. Sangana*). Prove that the points of intersection of each side of a triangle with the tangent to the circum-circle at the opposite vertex are collinear; and that the line of collinearity is the polar of the symmedian point with regard to both the circum-circle and the Brocard ellipse.

Solution by C. S. Mahadeva Aiyar, B.A.

Let abc be the triangle formed by the tangents to the circum-circle of the triangle ABC.

Through a draw DaE parallel to cb meeting AB, Ac in D and E. obviously DE is antiparallel to Bc; and $aD = aB = aC = aE$.

$\therefore$ Aa is a symmedian of triangle ABC. Similarly Bb and Cc.

∴ Aa, Bb, Cc concur at K the Lemoine point of the triangle ABC The two triangles ABC, abc are in perspective and therefore the corresponding sides intersect in collinear points.

Again, since A is the pole of bc and a of Bc, Aa is the polar of the point of intersection of bc and BC

∴ The polar of K passes through this point and similarly through the points of intersection of ca, C and ab, AB.

It is proved analytically (see Milne's Companion, page 133) that the line in question, the well-known *Lemoine line* is the chord of imaginary contact of the Brocard ellipse with the circum-circle. Hence it is the polar of K with regard to the ellipse.

177. (*K. V. Natesa Aiyar, B.A.*) n persons go into a garden and pluck mangoes. The first, finding that he has too many, distributes to each of the others as much as he had already. The second does the same afterwards, and so on. After the *nth* has distributed in his turn, they are all found to have the same number of mangoes each. Find the number of mangoes that each had to start with.

Solution by R. Ramachendra Row, B.A.

Let $a_1, a_2 \ldots a_n$ represent the initial numbers. At each interchange, the numbers are doubled, except that of the person who distributes. In the case of this person, the resultant number is also twice what he had less the total number (s, say), because

$$a_1 - a_2 - \ldots - a_n = 2a_1 - s.$$

The initial numbers are

$$a_3 \quad a_2 \quad a_3 \quad \ldots \ldots a_n.$$

After 1st interchange, they become

$$2a_1 - s \quad 2a_2, \quad 2a_3 \quad \ldots \quad 2a_n;$$

then

$$4a_1 - 2s, \; 4a_2 - s, \quad 4a \quad \ldots \quad 4a_n;$$

then

$$8a_1 - 4s, \; 8a_2 - 2s, \; 8a_3 - s \ldots \quad 8a_n;$$

after n interchanges

$$2^n a_1 - 2^{n-1} . s, \qquad 2^n a_2 - 2^{n-2} . s, \quad \ldots \quad 2^n a_n - s.$$

Each of the last quantities $= s/n$, where $a_1, a_2 \ldots$, may be easily determined.

187. (*C. N. Cama*) Prove that

$$\int_0^\pi x^n \sin^m x dx = \frac{m-1}{m} \int_0^\pi x^m \sin^{m-2} x dx - \frac{n(n-1)}{m^2} \int_0^\pi x^{n-2} \sin^m x dx.$$

Solution by R. Ramachendra Row, B.A.,

$$\int_0^\pi x^n \sin^m x dx = \int_0^\pi x^n \sin^{m-1} x d(-\cos x) =$$

$$\left[-\cos x . x^n \sin^{m-1} x\right]_0^\pi \int_0^\pi \cos x (n x^{n-1} \sin^{m-1} x + \overline{m-1} . x^n \sin x^{m-2} x \cos x)$$

$$= \int_0^\pi n x^{n-1} \sin^{m-1} \cos x dx - (m-1) \int_0^\pi x^n \sin^m x dx + (m-1) \int_0^\pi x^n \sin^{m-2} x dx$$

$$\therefore m \int_0^\pi x^n \sin^m x dx - (m-1) \int_0^\pi x^n \sin^{m-2} x dx$$

$$= n \int_0^\pi x^{n-1} \sin^{m-1} x \cos x dx = \frac{n}{m} \int_0^\pi x^{n-1} d(\sin^m x)$$

$$= \frac{n}{m} \left\{ x^{n-1} \sin^m x - \int (n-1) x^{n-2} \sin^m x dx \right\}_0^\pi$$

$$= -\frac{n(n-1)}{m} \int_0^\pi x^{n-2} \sin^m x dx.$$

184. (*G. Rama Aiyangar, B.A.*) If the normals at the points P, Q, R of a parabola be concurrent, then the circle PQR passes through the vertex of the parabola.

(1.) *Solution by S. Srinivasa Row.*

Since the normals meet in a point, the algebraic sum of the ordinate of P, Q, R, is zero; and the ordinate of the vertex is also zero. But, if there be four points on a parabola such that the algebraic sum of their ordinates is zero, they are concyclic. Hence follows the theorem.

(2.) *Solution by A. Radhakrishna Aiyar, B.A., and others.*

The normal at the point (m_1) *ie.*, $(am_1^2, -2am_1)$ on the parabola $y^2 = 4ax$ is $y = m_1 x - 2am_1 - am_1^3$

The normals at the points m_1, m_2, m_3 will meet at a point $(h\ k)$ if they are the roots of the equation $k = mh - 2am - am^3$

It follows that $m_1 + m_2 + m_3 = 0$, (1)

The equation of the circum-circle of m_1, m_2, m_3 may be easily written down in the determinant notation.

The constant term is

$$\begin{vmatrix} a^2 m_1^4 + 4a^2 m_1^2, & am_1^2, & -2am_1 \\ a^2 m_1^4 + 4a^2 m_2^2, & am_2^2, & -2am_2 \\ a^2 m_3^4 + 4a^2 m_3^2, & am_3^2, & -2am_3 \end{vmatrix} = \Delta \text{ say.}$$

Subtract $4a$ times the second column from the first and then take out common factors;—

$$\Delta = -2a^4 m_1 m_2 m_3 \begin{vmatrix} m_1^3, & m_1, & 1 \\ m_2^3, & m_2, & 1 \\ m_3^3, & m_3, & 1 \end{vmatrix}$$

$=0$, by virtue of relation (1)

Therefore the circum-circle passes through the vertex.

Questions for Solution.

218. (*C. N. Cama.*) Prove that $\frac{3}{8}\pi a^2$ is the area of the curve

$$x^4 - 3ax^3 + a^2(2x^2 + y^2) = 0.$$

219. A prism whose refracting angle is i is curved round its edge. Show that if an object is viewed by an eye in the same principal plane with it and placed close up to the edge, that the greatest angular oscillation of the image is

$$\frac{\pi}{2} + \sin^{-1}\left\{\mu \sin(i-\epsilon)\right\} - 2\sin^{-1}(\mu \sin \tfrac{1}{2} i),$$

where μ=refractive index and $\epsilon = \sin^{-1}\frac{1}{\mu}$. [*Bombay, B.A.*, 1896.

220. A sphere of radius a filled with mercury and water in equal volumes is set rotating uniformly about a vertical diameter. Prove that the bounding surface of the two liquids will just touch the bottom of the sphere when it is revolved with the angular velocity ω, given by

$$a\left(1 - \frac{1}{\sqrt[3]{2}}\right) = g/\omega^2.$$ [*Bombay, B.A.*, 1896.

221. (*T. R. Venkataswami Nayudu, B. A.*) Solve the following question and explain what erroneous method of solution is expected by the Examiner:—

"Trace the changes in sign and magnitude of $\sin\theta + \sin 2\theta$ as θ changes from 0 to 2π." [*Madras, F.A.*, 1875.]

222. (*V. Ramaswami Aiyar, M.A.*) If two figures F, F′ be inverses of each other, the inverses of F, F′ with respect to any pair of corresponding points A, A′ of the figures are *Similar*.

223. (*S. P. Singaravelu Mudalyar, B.A.*) If from a point P perpendiculars PL, PM, PN be drawn to the sides of the triangle ABC, shew that the area of the triangle ABC exceeds four times the area of the triangle LMN by $2OP^2 \sin A \sin B \sin C$, where O is the circumcentre of the triangle ABC.

NOTICE TO CORRESPONDENTS.

The Mathematical Editor will be glad to receive solutions of the following Questions proposed in this Journal ;—

25 ; 44 ; 46 ; 50 ; 69 ; 86 ; 88 ; 90 ; 96 ; 97 ; 98 ; 101 ; 112 ; 116 ; 120 ; 150 ; 152 ; 157.

Mathematical contributors are requested to communicate their address to the Editor.

NOTIFICATIONS.

BOMBAY.

List of appointments in the Educational Department for the month of January 1897.

6th January 1897.—Mr. G. G. Nene, B.A., is confirmed as 5th Assistant Master, Sholapur High School.

8th January 1897.—Pandit Nanuram Chandra Bhanu is appointed 1st Assistant to the Professor of Oriental Languages, Elphinstone College.

9th January 1897.—The following appointments are made in the Nariad High School :—Mr. J. M. Vyas to be the 9th Assistant; Mr. N. D. Mehta to be 10th Assistant; Mr. K. G. Dave to be 11th Assistant; Mr. G. P. Sutaria to be 12th Assistant; Mr. M. O. Koreshi to be 13th Assistant.

11th January 1897.—Mr. B. K. Jagtiani is appointed substantive 1st Assistant, N. J. High School, Karachi; Mr. K. J. Chainani is appointed substantive 1st Assistant, Hyderabad High School.

15th January 1897.—Mr. Sahebji Walad Dada Banekar, Gymnast, B. J. High School, Thana, is appointed Gymnast in the Poona High School from the 1st of April next.

20th January 1897.—Mr. K. J. Malkani, B.Sc., is confirmed as 9th Assistant Master, Karachi High School.

26th January 1897.—Mr. B. K. Thorat is confirmed as Gymnast in the Bijapur High School.

28th January 1897.—The following appointments are made in the Elphinstone High School :—Marathi Side—Mr. D. R. Bhende to be the 15th Assistant; Mr. W. H. Khare to be 16th Assistant; Mr. V. D. Marathe to be 17th Assistant. Gujarathi Side—Mr. N. K. Daji to be 13th Assistant; Mr. S. M. Vazifdar to be 15th Assistant; Mr. U. G. Dewan to be 16th Assistant; Mr. J. B. Mehta to be 17th Assistant; Mr. M. B. Bahadurji to be 19th Assistant; Mr. B. M. Sutaria to be 20th Assistant; Mr. B. R. Lentin to be 21st Assistant; Mr. Y. N. Kasami to be 22nd Assistant.